MARCH 1954

ARCHITECTURAL RECORD

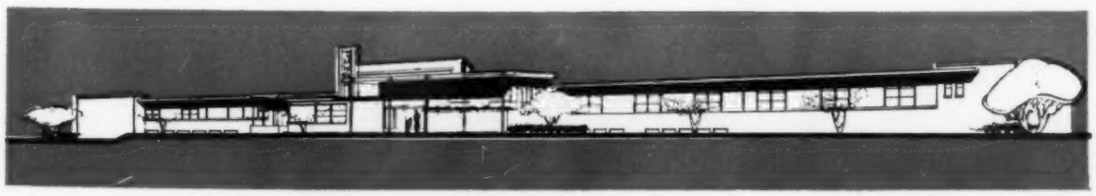
Chicago Architectural Publishing Co

Hedrich Blessing

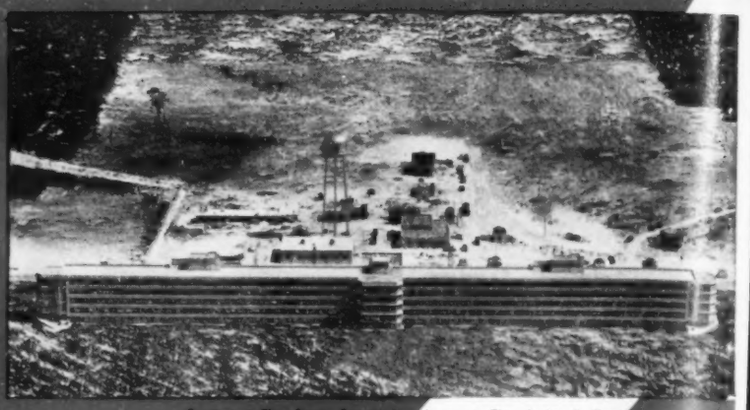
Among the concerns of our government for the human problems of our citizens, the subject of health ranks high. For only as our citizens enjoy good physical and mental health can they win for themselves the satisfactions of a fully productive, useful life.

Pres. Dwight D. Eisenhower

BUILDING TYPES STUDY NUMBER **208** HOSPITALS

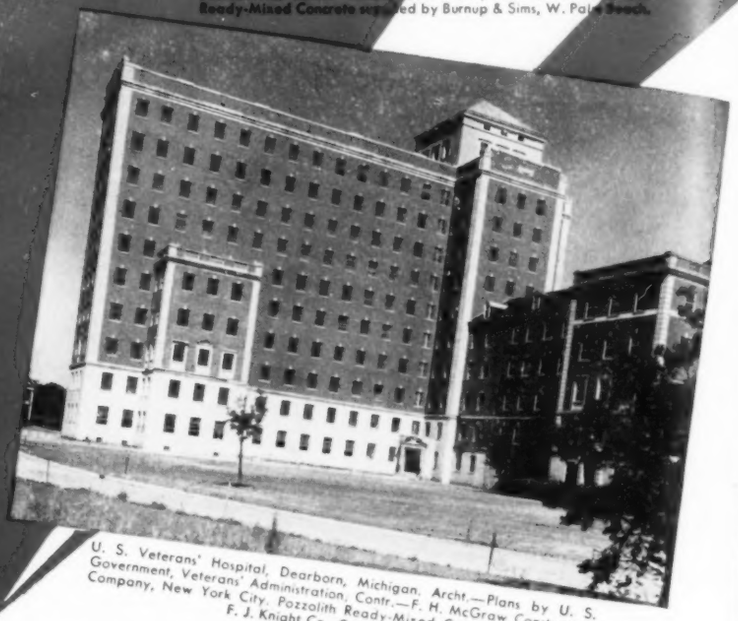


St. Francis Hospital, Lynwood, Calif. Archt. — Geo. Adams, Glendale, Calif.; Struc. Engr.—E. C. Hillman, Jr., Los Angeles; Contr.—J. K. Thomas & Theo. Beyer, Los Angeles. Pozzolith Ready-Mixed Concrete supplied by Consolidated Rock Products Co., Los Angeles.



Southeast Fla. State Sanatorium, Lantana, Fla. Archt. & Engr.—Reynolds, Smith & Hills, Jacksonville, Archt. (Assoc.) Chas. K. Klein, Jacksonville; Contr.—Arnold Constr. Co., Palm Beach. Pozzolith Ready-Mixed Concrete supplied by Burnup & Sims, W. Palm Beach.

St. Francis Cabrini Hospital, Alexandria, La. Archt.—Goleman & Rolfe, Houston, Texas; Contr.—Lionel F. Favret, New Orleans, La.



U. S. Veterans' Hospital, Dearborn, Michigan. Archt.—Plans by U. S. Government, Veterans' Administration. Contr.—F. H. McGraw Construction Company, New York City. Pozzolith Ready-Mixed Concrete supplied by F. J. Knight Co., Centerline, Mich.

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March 1954 Vol. 115 No. 3

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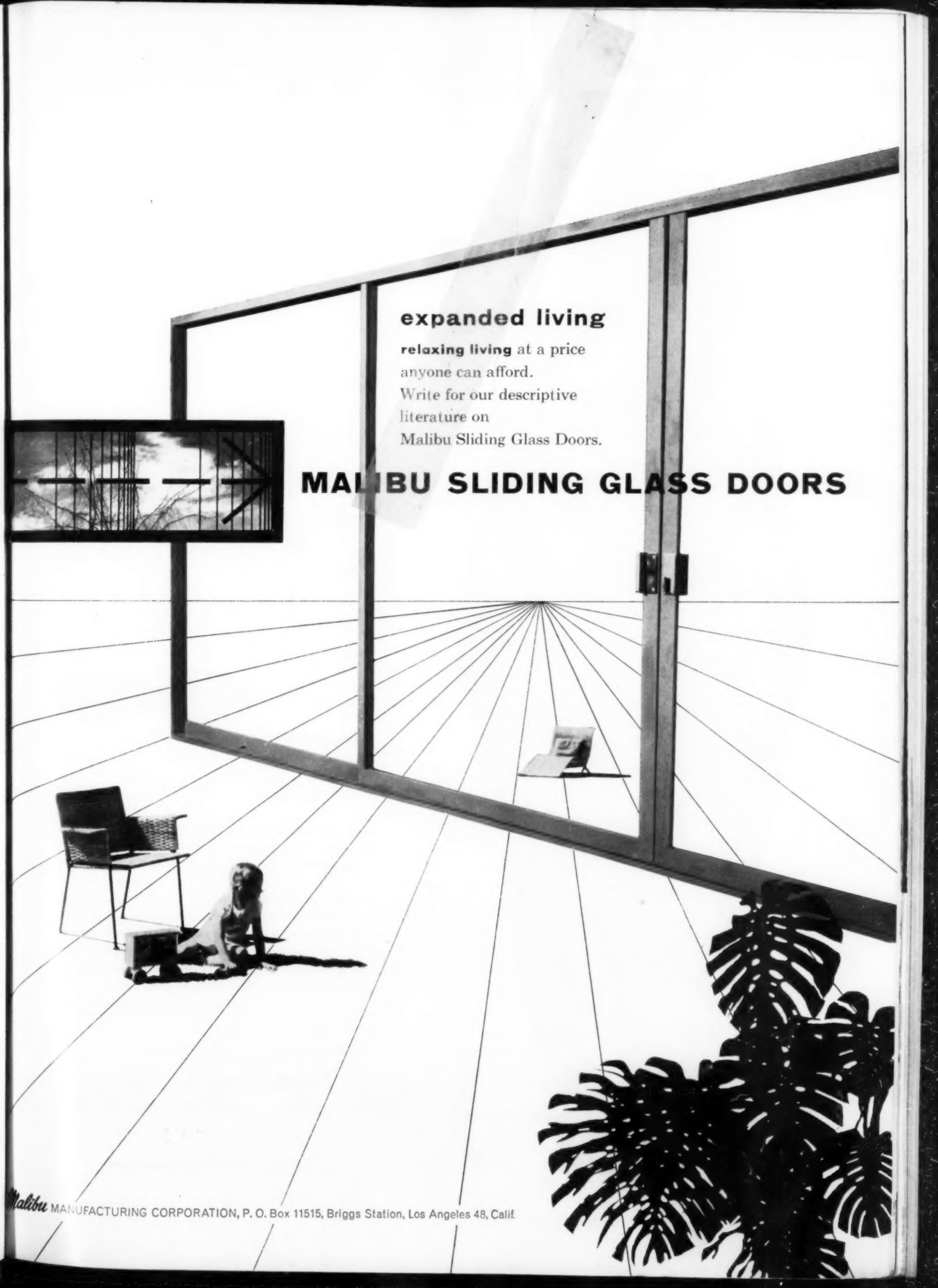
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THE RECORD REPORTS

PERSPECTIVES

INVITATION TO ARCHITECTS? Housing and Home Finance Agency Administrator Albert M. Cole says he is "all for anything that will unfreeze design" of housing. The A.I.A.'s proposal for an industry-wide committee to revise FHA Minimum Property Requirements? — Mr. Cole said he, and, he was sure, FHA Commissioner Guy Hollyday, would welcome any proposals which aimed at freeing design.

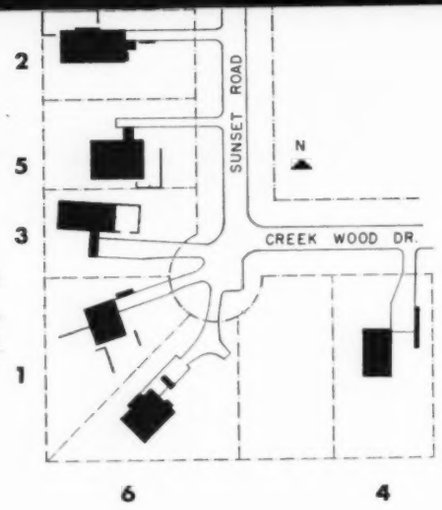
A GREAT RELIGIOUS ARCHITECTURE can only arise out of a great religious faith," says Dr. Harry C. Atkinson of New York, director of the National Council of Churches' Bureau of Church Building. A marriage of architecture and theology rooted in university and seminary training is needed, Dr. Atkinson suggests, to avoid the pitfalls of church design that lacks "spirituality" on the one hand or ignores modern trends on the other. Dr. Atkinson spoke before an Institute on Church Architecture held last month in Philadelphia under the joint sponsorship of the Philadelphia Council of Churches, the Philadelphia Chapter of the American Institute of Architects and his own organization. He called on practicing architects "to enter into the function of the modern church with sympathy"; as for churchmen, they were told: "It is a major task of the churches to encourage our architects . . . to use new materials and new methods, and to apply them to forms of edifices that express honestly the religious faith of our times. Likewise, our church leaders might well lay open their minds to understanding the difficult and challenging problem which confronts the designing architect."

MOTELS NOW OUTNUMBER HOTELS 2 to 1, according to *American Motel Magazine*, which recently completed its second exhaustive survey of the motel industry. Total number of motels recorded: 50,576 — compared with 43,356 when the magazine made its first survey in 1951. The leading motel state, California, has a big edge on Florida in this department — 7330 to 4124 — but Florida does take second place. Other leaders: New York (3305); Texas (3214); Oregon (2405); Colorado (1932); Michigan (1808); Minnesota (1381); Pennsylvania (1374); Washington (1211); Arizona (1192); Missouri (1191); Wisconsin (1106). At the bottom of the list: North Dakota (141); Rhode Island (77); and Delaware (46).

POWER STATIONS OF THE FUTURE — and what else? — may be radically different in design if the implications of the tiny atomic battery which has been developed by the Radio Corporation of America are not misread. The battery converts nuclear energy directly into small but usable amounts of electrical energy — as R.C.A.'s David Sarnoff demonstrated at a New York press conference by hooking the battery to an old-fashioned telegraph key and tapping out a hopeful first message: "Atoms for peace," it began. Until now, said Dr. E. W. Engstrom, executive vice president in charge of the R.C.A. Laboratories Division, "power from the atom has been used in much the same way as coal in the furnace of an electric power plant. All the remainder of the plant remained unchanged — boilers, and an engine or turbine driving a massive electric generator. Only the nature of the fuel was altered when nuclear energy replaced coal or oil. But if the promise of the R.C.A. atomic battery is ultimately fulfilled on a large scale, the power plant of that day would have only an atomic generator." The insistent rattling of the atom was heard also, in the same cold January week, from the small Connecticut town of Groton, where Mrs. Dwight D. Eisenhower christened the *Nautilus*, the world's first atomic-powered submarine. The usual champagne, and the usual words, except for a fateful name.

WONDERS OF CHICAGO: The American Society of Civil Engineers, which has been conducting a nationwide survey to select the "Seven Engineering Wonders of the United States," now has the vote from its Illinois section on the Seven Engineering Wonders of the Chicago metropolitan area (for New York's, see July 1953, page 9). The Chicago "Wonders": (1) Lake Shore Drive and Park Development (1600 acres reclaimed from Lake Michigan); (2) South Chicago and Gary steel mills; (3) Sanitary and Ship Canal (a project which made it possible to reverse the flow of the Chicago River); (4) Bascule Bridges over the Chicago River; (5) the Merchandise Mart; (6) the sewage disposal system (which includes 243 miles of intercepting sewers and three large treatment plants — one the largest of its type in the world); (7) "The First Skyscraper" — William LeBaron Jenney's Home Insurance Building (1885).

William LeBaron Jenney's Home Insurance Company Building, Chicago (1885), chosen by Illinois civil engineers as one of "Seven Engineering Wonders" of Chicago area



THE SITE
Research Village, Barrington Woods,
Barrington, Illinois

PLAN CONSTRUCTION OF "RESEARCH VILLAGE" WITH HOUSES BY SIX ARCHITECT-BUILDER TEAMS

THE UNITED STATES GYPSUM COMPANY, a major manufacturer of building materials, has launched a promotion project which focuses on an area that can use a lot of promotion — architect-builder-manufacturer teamwork in the design and construction of low-cost houses.

The project has brought together six architect-builder teams, chosen to represent every section of the country, as the progenitors of six houses — all under 2000 sq ft in floor area and most under 1500 sq ft — each designed by an architect who worked with a builder teammate checking his scheme for construction "practicality" and "sales ideas." The six houses will go under construction early this spring on a wooded site in Barrington, a Chicago suburb; the development, to be known as "Research Village," will get the widest publicity U. S. Gypsum can manage as a laboratory of ideas for low-cost houses.

Primary objectives of the project as set up by the company are:

1. To contribute new design and construction ideas, particularly for the project homebuilder.

2. To create new uses for building materials.

3. To create more livability, comfort, safety and value for the homeowner.

"The idea," the company is careful to say, "was to build six low-cost houses with ideas that could be duplicated — not houses that would be duplicated in their entirety."

Architects were free to use the materials of any manufacturer. In the course of the several planning sessions in Chicago, however, U. S. Gypsum naturally saw to it that all its building materials came under the architects' scrutiny, and now reports — as one early by-product of the project — that it has started several research projects based on product needs the architects suggested.

The six "teams": Harris Armstrong, A.I.A., Kirkwood, Mo. — Don Drummond, Kansas City; Gilbert H. Coddington, A.I.A., Columbus — Alex Simms, Dayton; O'Neil Ford, A.I.A., San Antonio — Frank Robertson, San Antonio; A. Quincey Jones Jr., A.I.A., Los Angeles — Joe Eichler, Palo Alto; Francis D. Lethbridge, A.I.A., Washington — Luria Brothers, Arlington, Va.; Hugh Stubbins Jr., A.I.A., Lexington, Mass. — Leonard Frank, Hempstead, N. Y.

Architects were selected, from the 36 of 40 nominated who expressed interest in participating, by an architectural advisory panel consisting of Morgan Yost, F.A.I.A., Kenilworth, Ill.; John Root, F.A.I.A., of Holabird & Root & Burgee, Chicago; and Richard Bennett, F.A.I.A., of Loebl, Schlossmann & Bennett, Chicago. A builders' advisory panel set up by the National Association of Home Builders selected their builder teammates.

THE SIX TEAMS

NORTHEAST


Architect-Stubbins


Builder-Frank

SOUTHWEST


Architect-Ford


Builder-Robertson

MIDWEST


Architect-Coddington


Builder-Simms

MIDWEST


Architect-Armstrong


Builder-Drummond

PACIFIC COAST

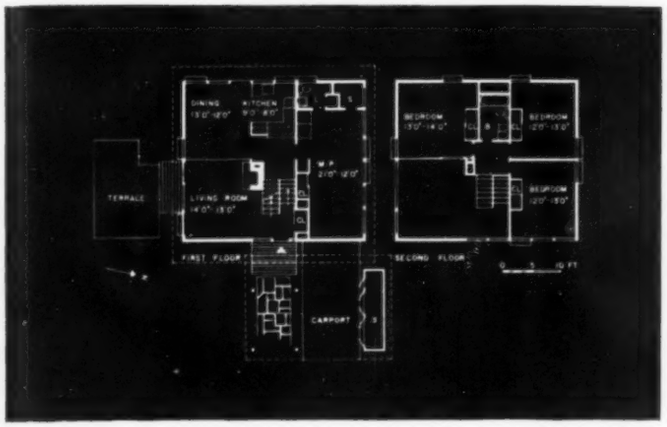

Architect-Jones


Builder-Eichler

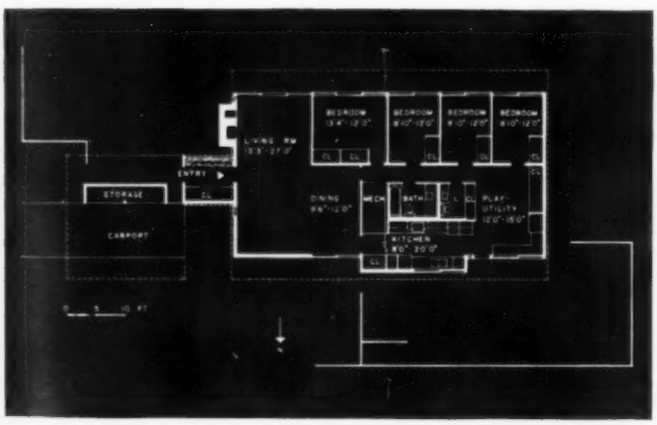
SOUTHEAST

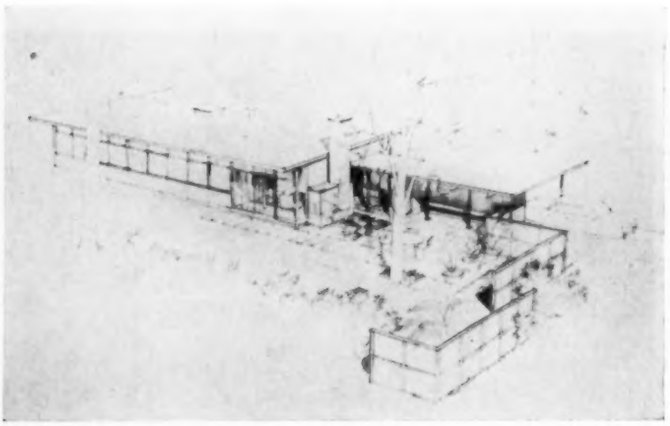

Architect-Lethbridge


Builder-Luria

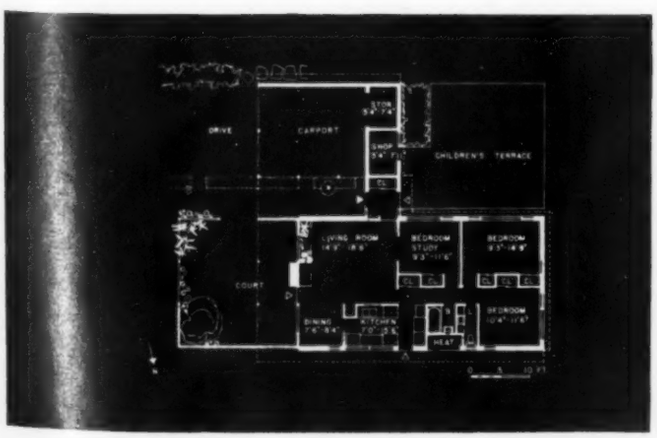


1 STUBBINS-FRANK house gets 1404 sq ft of usable floor space from an area 32 ft 8 in. by 26 ft. Only the living room is at entrance level: kitchen, dining room, multipurpose room with bath are down 3½ ft; three bedrooms and bath are up 3½ ft. Sliding wall panels, open stairway create more "space"





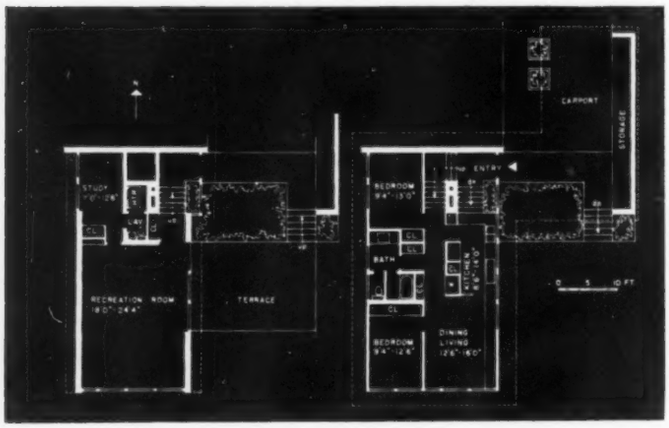
2 FORD-ROBERTSON house, less than 1624 sq ft in floor area, has four bedrooms, generous living room with built-in TV center on one side, conversation center around fireplace opposite. TV center provides extra storage space, partition between living and dining areas. Roof will be concrete lift-slab



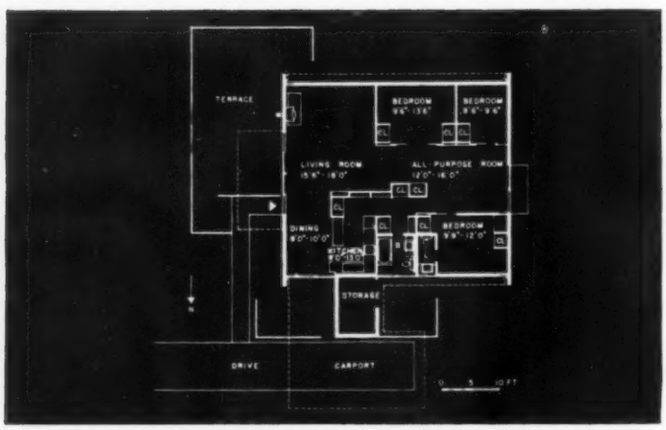
3 ARMSTRONG-DRUMMOND house offers such amenities as a workshop, extra storage in the carport, convertible study-sleeping quarters, a large patio, a central hallway for easy circulation. Living room has floor-to-ceiling windows next to patio. Basic structure contains 1174 sq ft of floor space

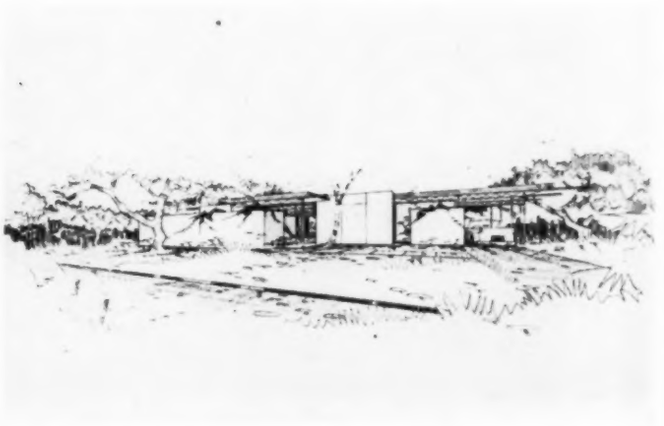
(*Continued on page 12*)

THE SIX HOUSES (*Continued from page 11*)

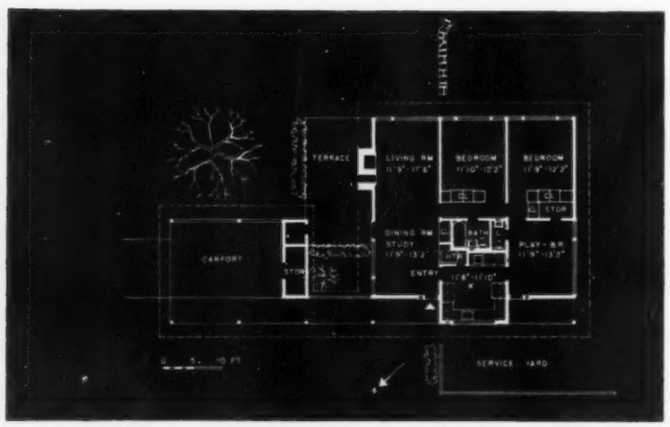


4 CODDINGTON-SIMMS house is another tri-level design for a sloping lot. Its kitchen "housewife supervisory" area on top level has easy view of both front door and ground level patio play area. Kitchen cabinets and counters take advantage of wall area kept low to cut materials and construction costs





5 JONES-EICHLER house claims three special advantages — flexibility, high fire resistance, quick construction. Floor plan is on 7-ft module, can be turned in any direction, with carport on any side; partitions are non-load-bearing. Steel structure will be left exposed on interior. Floor space: 1395 sq ft



6 LETHBRIDGE-LURIA house uses zoned plan to achieve some degree of privacy for all the family — master bedroom is buffer between living room and children's bedroom. Kitchen and laundry are in center point for housewife supervision of all areas. This scheme, one of three by team, has 1089 sq ft

(*More news on page 15*)

$32,500 Competition

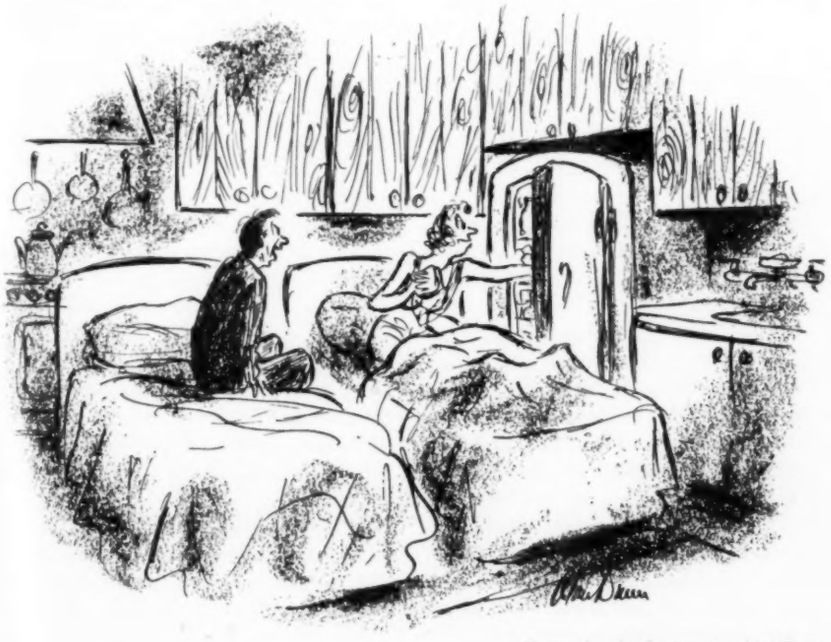
THE RICHEST architectural competition in many a long year has been announced in Chicago, where 30 years ago the $20,000 Tribune Tower competition was rocking the architectural world. The Carson Pirie Scott and Company Centennial Competition in City Planning offers a $20,000 first prize and $12,500 in additional prizes for a plan for the redevelopment of the Central Commercial District of Chicago which will "obtain increased efficiency in the functions of the district, enhancement of the physical facilities, improved convenience to the public and addition of esthetic qualities to the environment." The competition, which has the approval of the Committee on Competitions of the American Institute of Architects, is open to "architects, engineers, city planners, students of these professions and persons in allied occupations who are residents of the continental United States." Team participation is welcomed. Howard L. Cheney, F.A.I.A., is professional adviser. Programs and a data kit, including base plans, are available from: Centennial Office, Carson Pirie Scott and Company, One South State Street, Chicago 3, Ill. The competition closes July 1.

The Shape of the Convention

THREE MONTHS till the 1954 national convention of the American Institute of Architects, and some of the plans for that 86th annual event reached announcement stage last month. "Forces that Shape Architecture" is the theme; Philip Creer of Providence, R. I., New England A.I.A. regional director, is convention chairman, with James Lawrence Jr. of Boston, president of the Massachusetts State Association of Architects, as chairman of the host chapter convention committee; the sixth annual Honor Awards Program will offer special honors in school and hospital design in addition to the general awards. Recipients of the annual Gold Medal, Fine Arts Medal, Craftsmanship Medal and Edward C. Kemper Award for Service to the Institute, presented at the convention each year, will be designated by the A.I.A. Board of Directors at their Washington meeting early this month. The building products exhibit by 69 manufacturers and distributors, co-sponsored by the Producers' Council, this year will have its own awards — citations for the best display booths.

Masonry vs. Metal

HOW TO COPE with "the current threat which the substitution of so-called skin-metal facing for full masonry construction is making against the stone industry" was the major theme of the sixth national convention of the reactivated Stone Council of the International Cut Stone Contractors and Quarrymen's Association in Washington, D. C. The convention voted a substantial program of advertising and promotion; it also set up committees to find new methods of producing and fabricating stone to reduce its final cost and new methods of setting and applying stone "to reflect current tendencies in architectural design." Douglas Whitlock, president of the competing Structural Clay Products Institute, was the convention's keynote speaker. He urged collaboration of the masonry products industries to meet the "common problem" of competition from metal construction.



—Drawn for the RECORD by Alan Dunn

"I didn't mind bringing the dining room into the kitchen—or the living room into the kitchen—but—!"

Medallion contributed for Society of Architectural Historians' fifth annual book award by Prof. Henry-Russell Hitchcock of Smith College in memory of his mother is Wedgewood medallion in white on black jasper in pewter frame of the architect James Stuart (1713–1788). It was modeled by William Hackwood

Top Architectural Histories

THOMAS HOWARTH, English writer, teacher and architect, has won the fifth annual book award of the Society of Architectural Historians for his book "Charles Rennie Mackintosh and the Modern Movement" (see page 46) published in 1953 by the Wittenborn Publications of New York City. Two other books received honorable mentions: "Architecture in Britain 1530–1830" by John Summerson (Penguin Books) and "The Church of St. Martin at Angers" by George H. Forsythe (Princeton University Press).

Honors to Architects

THE AMERICAN ACADEMY of Arts and Letters, the nation's highest representative body of the arts, has elected an architect, Arthur Brown Jr., F.A.I.A., of San Francisco, as one of four new members. Election to the Academy, which has a life membership of 50, designates the nominee as "a creative artist whose works are most likely to

(*Continued on page 16*)

(*Continued from page 15*)
achieve a permanent place in American culture."

THE NATIONAL INSTITUTE of Arts and Letters, a group of 250 American citizens "qualified by notable achievements in the arts, music or literature," has named Architect Eero Saarinen, F.A.I.A., of Bloomfield Hills, Mich., among five new lifetime members. James Kellum Smith, F.A.I.A., of New York, has been elected one of two new vice presidents. Membership in N.I.A.L. is one of the prerequisites to membership in the American Academy.

More Basements?

CONCRETE BLOCK production has quadrupled in the past 12 years, but the prognosis for 1954 is for only a small increase, according to an address at the 34th annual convention of the National Concrete Masonry Association last month by E. W. Dienhart, the Association's executive secretary. The drop in volume in the house basement market has been of prime concern to the concrete block industry, Mr. Dienhart noted, but he added: "We are firmly convinced that at least in the northern areas the swing is back toward the inclusion of basements in home construction." Of the total volume of concrete block production, Mr. Dienhart said, 57 per cent is used in nonresidential buildings, 11.2 per cent in schools; 37.3 per cent in residential construction; and 4.3 per cent in government construction, largely (3.1 per cent) for public housing.

Labor Offers Cost Aid

COOPERATION WITH CONTRACTORS to reduce building costs was offered by the building trades after a session of the Building and Construction Trades Department of the American Federation of Labor last month in Miami Beach. Taking cognizance of reports from its affiliates across the nation of toughening competition, the Department authorized appointment of committees to work with contractors for the elimination of practices tending to boost building prices. Joseph D. Keenan, the Department's secretary-treasurer, said the present problem is to convince investors that they can get more for their money by having union labor perform their work. The Department represents about two million workers.

Who's Who

ELECTED or re-elected at recent meetings:

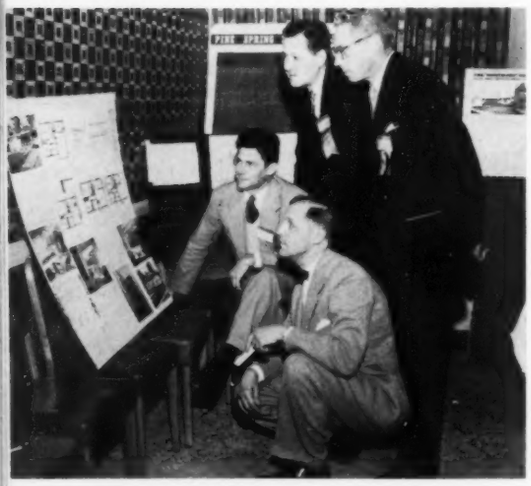
John McC. Mowbray of Baltimore, president of the *Urban Land Institute*, independent research organization in urban planning and development, with headquarters at 1737 K Street N. W., Washington 6, D. C.

D. A. Rhoades of Oakland, Cal., as president of the *Aluminum Association*, 420 Lexington Avenue, New York 17.

John E. Jackson, of Pittsburgh, as president of the *American Institute of Steel Construction*, 101 Park Avenue, New York 17, N. Y.

N.A.H.B. SETS GOAL: 1,400,000 HOMES A YEAR

THE TENTH ANNIVERSARY CONVENTION of the National Association of Home Builders, held January 17–21 in Chicago, was — as advertised — the N.A.H.B.'s biggest show ever. "More than 20,000" was the estimate on attendance; for the first time two hotels, the Sherman and the Conrad Hilton — were needed to handle all the exhibits, discussions, speeches, "presentations" and "demonstrations" included in the program; the building products exhibit — with 520 individual booths set up by 315 manufacturers — was thought to be the largest exposition of building materials ever held — in space terms it took well over 100,000 sq ft of floor area.



JURY IN SESSION: Judges look over an entry in N.A.H.B. Design Merit Award Competition. Standing (left to right) Herman York, New York architect, and Alex Simms, Dayton, Ohio, builder. Seated: Alfred Parker, architect, Miami. Edward Burch, architect, Chicago is in foreground

Home builders assembled in optimistic mood — on the business outlook in general and their own expectations in particular. "Close to a million units" was the 1954 level predicted by outgoing President Emanuel M. Spiegel; at their closing session N.A.H.B. delegates set a goal for their industry of 1,400,000 units annually for the next 10 years — a new peak their policy statement said was justified by population gains and the need for replacement of millions of substandard homes.

Prospects for 1954 homebuilding and "how-to-do-it" workshops got the major program emphasis. Government officials talked on mortgage financing, trade-in homes, housing for minorities, and the legislative probabilities and possibilities in the development of the new housing law. Industry men discussed taxes, selling methods, land planning, management, merchandising, rental housing, design and public relations. There were special sessions devoted entirely to prefabricated housing, building large subdivisions and selling them, and interior decoration. The program featured actual demonstrations on how to build better at lower cost, movies, slides and even a stage show to demonstrate proper wiring methods.

The point that good design can help sell builders' houses appears to have been made, at least in principle, and architects are more visible at the builders' convention than they used to be.

They were major participants in two sessions at this year's convention. In one, the architects of the U. S. Gypsum Company's Research Village (see pages 10–12) joined their builder team-mates to tell "How the U. S. Gypsum Houses Were Designed." Another, forthrightly entitled "Good Design Is Good Business," put Edward Fickett, A.I.A., Los Angeles, Alfred Parker, A.I.A., Miami, Carl Norcross, executive editor of *House and Home* and Leonard G. Haeger, A.I.A., director of N.A.H.B.'s Research Institute, on a panel intended — the homebuilders were told — "to show you the difference in sales and profits if you take advantage of the good you can do with better design."

R. G. Hughes of Pampa, Tex., is the new N.A.H.B. president. Nathan Manilow of Chicago was elected first vice president; Paul Burkhard, Glendale, Cal., second vice president; V. O. Stringfellow, Seattle, treasurer; and Franklin L. Burns, Denver, secretary.

(*More news on page 20*)

HOW CECO JOIST CONSTRUCTION HELPED SAVE $4.00 PER SQUARE FOOT

Erecting a building with firm footings in downtown Chicago clay is no simple task. Accomplishing that, plus cutting costs, is truly a stand-out feat.

Such is the story of the Remington Rand Chicago Office Building and the problem solved by Architects Bartlett, Watts and Rissene.

Analysis indicated that usual column spacings would impose excessive pressures on the subsoil, causing piles to drift. The solution: increase the distance between pile groups and spud every third pile.

But that created a problem . . . how to span the wider bays economically and keep the dead load on each pile group to a minimum. The architects knew Open-Web Steel Joists offered the lightest floor system, so called for their use.

Conduit and air-conditioning ducts were run through the open webs, resulting in further economies.

"Being self-centering and requiring no shores, Steel Joists were fast to erect," said Architect Harry Owen Bartlett. "Thus the contractor, J. L. Simmons Co., Inc., was able to pour slabs early, allowing masonry units to be stored on the floors and then laid up from inside, saving scaffolding."

Total cost of the building was $13.75 a square foot, compared to some comparable buildings costing $17.75—a saving of $4.00. Here is another example of Ceco performing on the architect-owner-contractor-supplier team.

Ceco Product Specialists will help you save through product engineering. So before you plan your next project, call your nearest Ceco office. Consult Sweet's file for address. CECO

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1955 BUDGET LEAVES MORE TO PRIVATE ENTERPRISE

All Major Construction Programs Cut, Most Only Slightly,

As Budget Sets Total Expenditures $5.3 Billion under 1954

BY ERNEST MICKEL

THE FIRST BUDGET developed entirely by President Eisenhower marks — according to the message accompanying it — "the beginning of a movement to shift to state and local governments and to private enterprise Federal activities which can be more appropriately and more efficiently carried on in that way. . . . In those cases where Federal participation is necessary, the effort of this Administration is to develop partnership rather than an exclusive and often paternalistic position for the Federal government."

In a $65.6 billion budget which estimated total fiscal 1955 expenditures at $5.3 billion less than the latest estimates for fiscal 1954 expenditures and $8.4 billion less than fiscal 1953 expenditures, decreases were recommended in every instance where major construction programs were involved. The reductions were not pronounced, in most cases (see table); the proposed $4 billion cut in defense spending, for example, fell far more heavily on other aspects of the military budget than it did on construction. A considerable portion of the planned expenditures, however, represented "working off" previous obligations; the President's $56.3 billion request for "new obligational authority" (that is, authority to make contracts) is $4.4 billion less than the current year, $23.9 billion less than the fiscal 1953 total and $35.1 below the Korean war peak in fiscal 1952.

The 1955 budget actually includes a larger outlay for the development of atomic energy resources; but the President's message made it clear that while operating costs will rise during the fiscal 1955 period, the initiation of new construction projects will be at a lower level than during recent years.

Here is a rundown on some of the construction programs as presented to the Congress in the budget:

Public Works — Expenditures for *military* public works will be maintained at the 1954 level approximately, as work goes forward on air bases, anti-aircraft, radar sites and other installations. A sum of $1109 million has been proposed as new obligational authority for the military public works program in fiscal 1955. The Administration plans to *spend*, however, $1650 million in the year beginning July 1. This compares with $1687 million for the current year and $1913 million actually spent in fiscal 1953. The outlay for fiscal 1951 in this field was only $439 million; it jumped to $1819 million in 1952.

Expenditures for *civil* public works were estimated to be $1639 million for the coming fiscal period. Of this amount, only $77 million is for new projects and commitments. [In addition, the U. S. Chamber of Commerce reported in its recently-published budget analysis, some $12 billion in construction work has been authorized by general or specific legislation.]

Three fourths of the civil public works program is accounted for by the river basin programs of the Army Corps of Engineers, the Bureau of Reclamation, and the Tennessee Valley Authority.

Atomic Energy — Under the 1955 budget, outlays for development and control of atomic energy would rise to a new high level. Operating costs will shoot up as newly-completed plants are brought into production. Capital expenditures will continue at a high level as construction goes forward on major new plants authorized in recent years. But significantly for the building industry, the President indicated that new construction projects to get under way in 1955 will be limited essentially to facilities directly related to the production program and to several research and development facilities. The volume of new work will not measure up to that of recent years.

Program	Net Expenditures (in millions) Fiscal Years		
	Actual 1953	Est. 1954	Est. 1955
Military public works	$1913	$1687	$1650
Atomic energy development	1791	2200	2425
Housing and community development	549	57	-277*
Schools (construction and operation in areas "federally impacted")	201	199	139
Hospitals (Hill-Burton)	75	65	50
Bureau of Reclamation	231	180	164
Federal Aid to Highway construction	550	592	582
Civil Defense	51	74	68
Defense community facilities and services	1	4	2

*Excess of payments and collections over expenditures, anticipating sales of mortgages held by Federal National Mortgage Association.

Schools — President Eisenhower asked for $40 million for aiding school districts in their construction programs during fiscal 1955. This amount, he said, together with the appropriation of $70 million for fiscal 1954, would provide for the most urgent classroom needs of the districts eligible for the aid under the extended program. He estimated the funds are building nearly

(Continued on page 288)

Acusti-luminus ceilings ...a Light for Indoors Actually Superior to Daylight!

...Partial view of Acusti-minus Ceiling at J. A. Folger & Kansas City, Mo., makers of er's Coffee, shows how former ping room was remodeled to e this modern, efficient unting department.

hitect: Emmett M. Robison of per, Robison and Carlson, sas City.

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Otis Elevator Co.
Sears, Roebuck & Co.
Standard Oil Co.
Stewart-Warner Corp.
Union Carbide and Carbon Corp.
University of California
Western Electric Co., Inc.
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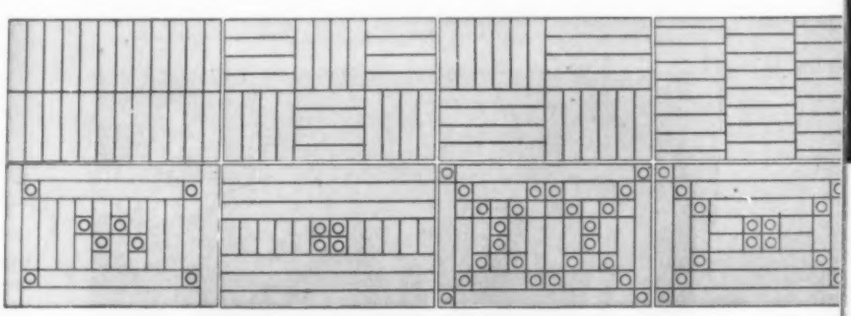

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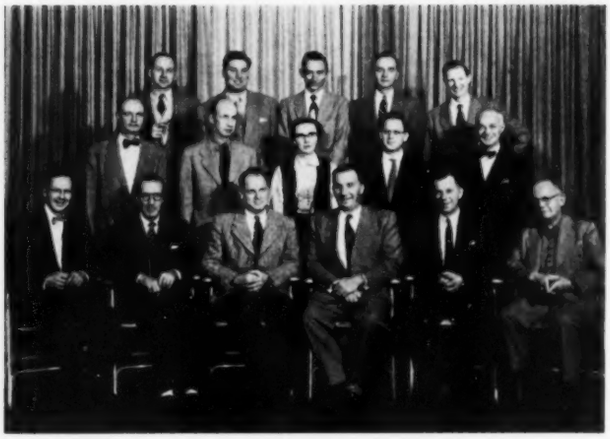
PEOPLE IN THE NEWS

ONE YEAR'S PROGRESS and a new year's plans were discussed at a two-day meeting of the A.I.A. Public Relations Committee with representatives of Ketchum Inc., A.I.A. public relations counsel, in San Francisco late in January. Above (left to right): Anson Campbell, Ketchum; Frank McNett, A.I.A., Grand Island, Neb.; Herbert C. Millkey, A.I.A., Atlanta; A.I.A. Executive Director Edmund Purves; Chairman John Root, F.A.I.A., Chicago; Vice Chairman Francis Joseph McCarthy, A.I.A., San Francisco; Karl Kamrath, A.I.A., and Maurice Sullivan, A.I.A., Houston; Walter Megronigle, Ketchum

FRANK LLOYD WRIGHT in a familiar pose — philosophizing for an eager circle of listeners; in this case, members of the new Monterey Bay, Calif., chapter of the A.I.A., at whose charter dinner he spoke. More or less facing camera (from left): Chapter Treasurer William Concolino, Director Wallace Holm, Secretary Jerome Kasavan, Vice President George Willcox, President Francis Palms, and A.I.A. Sierra Nevada Regional Director Charles Matcham

CENTRAL PENNSYLVANIA A.I.A. annual meeting V.I.P.s have the A.I.A. public relations program's "Facts Package" as their prop in this "candid": (left to right) Speaker Dr. Winston Weisman, assistant professor of fine arts at Pennsylvania State University; retiring President Dr. Milton S. Osborne, Penn State architecture head; new President William J. Zalewski

(More news on page 26)



SINNED AGAINST, FOR ONCE: in annual conclave at Rochester way back in December, members of the Architectural Photographers Association sat for this photograph (no credit line). Back row: Rodney McKay Morgan, Graham Warrington (Canada), Dewey Mears, Don Morgan, Richard Wurts. Middle: George Cushing, Robert Massar, Phyllis Dearborn, Robert Lautman, Rudy Leppert. Front: R. Marvin Wilson, Giovanni Souter, Cortland V. D. Hubbard, Joseph Molitor (association's new president), Ed Hedrich, Sigurd Fischer

WEST VIRGINIA A.I.A.'s new officers, elected at recent annual meeting: (seated) President Charles A. Haviland (left), Charleston, and Vice President William H. Grant Jr., Clarksburg; (standing, left to right) Secretary-treasurer G. Cameron Hunter and retiring Vice President Paul Vaughan and retiring President Irving Bowman, Charleston, newly-elected members of the Board

TENNESSEE architects have outgrown their single state A.I.A. chapter, are now organized in four chapters and a state society. Above: A.I.A. President Clair Ditchy presents charter to president of new Tennessee Society of Architects, William P. Cox, while (left to right) Society officers Zeno L. Yeates, George E. Palm Jr. and Clinton E. Brush III look on. Seated: A.I.A. Gulf States Regional Director Howard Eichenbaum. Below: Mr. Eichenbaum officiates at charter presentation to new Memphis Chapter President R. T. Martin; other chapter officers (standing, left to right) are Zeno L. Yeates, Ed S. Thorn, John D. Bland, W. D. McKinnie Jr. The East Tennessee Chapter received its charter at Knoxville a few weeks later

NEWS FROM CANADA *By John Caulfield Smith*

YOUNG ARCHITECTS, 29 AND 30, WINNERS OF $10,000 COMPETITION, $1.5 MILLION JOB

DOUGLAS C. JOHNSON, 30, and Cunningham S. McWhinnie, 29, of the eight-months-old Windsor, Ont., architectural firm of Johnson-McWhinnie, are the winners of a $10,000 competition for the design of Windsor's new civic auditorium and convention hall. Johnson-McWhinnie, selected over six other entries, will also have the commission for the project, expected to cost about $1,500,000 including site.

The winning design (see below) provides a two-level auditorium, with a 2000-seat main auditorium on the upper level and a Little Theater, to seat 400, on the lower level, which is partially below grade; and a convention hall to seat 1800, with the floor at ground level so trucks and cars may be driven into it for display purposes. The two units are separated at ground level by an open colonnade and a sculpture court; at second-floor level they are joined by the public restaurant, which has a glass wall overlooking the Detroit River. There is also an outdoor concert theater to seat 500.

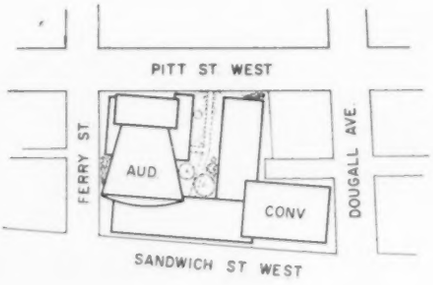
Why the Jury Liked It

The three-man jury listed among "some special merits which influenced the decision" these points: "A simple, logical use of the site joining the river and the park; a graceful entrance from Pitt Street, opening into a delightful sculpture court; the placing of all parking areas to the extreme boundary of the land so that the future continuity of the park will not be broken; excellent placing of outdoor theater."

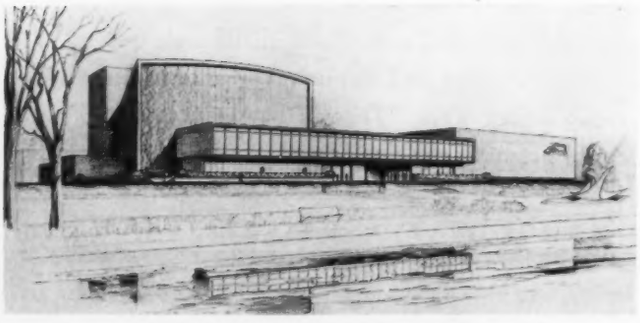
George D. Gibson, Toronto architect, was professional adviser and chairman of the jury. Other members were Peter Tillmann, M.R.A.I.C., London, Ont., and Eero Saarinen, F.A.I.A., of Bloomfield Hills, Mich. The competition was open to Windsor architects only.

Winners Are Toronto Alumni

Both members of the winning firm are natives of Windsor and graduates — Mr. Johnson in 1950 and Mr. McWhinnie in 1951 — of the School of Architecture of Toronto University. Until they opened their own office at 1645 Ottawa Street, Windsor, last July, Mr. Johnson had been with Giffels & Vallet of Canada Ltd. and, earlier, Allward & Gouinlock, Architects, of Toronto. Mr. McWhinnie had been first with Allan Construction Company and then with C. A. McElroy, M.R.A.I.C., Windsor.



Plot plan and perspective of prize-winning Johnson-McWhinnie scheme for Windsor civic center. Auditorium and convention hall are joined at first-floor-level by an open colonnade, at second-floor by public restaurant



A.I.A. President Clair W. Ditchy and Ontario architects' retiring president, Gordon S. Adamson. Below: Kenneth C. Welch of Grand Rapids and Mrs. Ditchy, with R. S. Morris, R.A.I.C. president

ALVIN PRACK ELECTED TO HEAD ONTARIO ARCHITECTS

THE 64TH ANNUAL CONVENTION of the Ontario Association of Architects, which broke all previous records for attendance, named Alvin R. Prack, of the Hamilton, Ont., architectural firm of Prack & Prack, as the new president of the Association. The convention was held January 22–23 at the Royal York Hotel in Toronto.

Mr. Prack heads a seven-man Council which includes Gordon S. Adamson, Toronto, immediate past president; George D. Gibson, Toronto, vice president; George Y. Masson, Windsor, treasurer; and members William H. Gilleland, Ottawa, Philip Carter Johnson, London, and E. C. S. Cox, Toronto.

Prof. H. H. Madill, director of the University of Toronto's School of Architecture, continues as chairman of the association's registration board, with William R. Souter of Hamilton as vice chairman. Other members are John M. Kitchen of Ottawa, William E. Fleury and Eric W. Haldenby of Toronto.

John D. Miller of Toronto has been reappointed secretary of both the council and the registration board.

(*Continued on page 30*)

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CANADA (*Continued from page 26*)

Above: panel on civic center design at Ontario (at right) included F. H. Marani and George D. Gibson, Toronto; A.I.A. President Clair W. Ditchy of Detroit; Anthony Adamson, Toronto Township reeve, the chairman; Controller Leslie H. Saunders and Building Commissioner K. S. Gillies, both of Toronto. Left: some 1954 officials — W. H. Gilleland, Ottawa (councillor); George Y. Masson, Windsor (treasurer); Gordon S. Adamson, Toronto (immediate past president); Alvin R. Prack, Hamilton (president); George D. Gibson, Toronto (vice president); E. C. S. Cox, Toronto (councillor)

The board, which is charged with regulation of the architectural profession in Ontario, reported an eight per cent increase over last year in the number of practicing architects in the province. There are now 660, all members of the O.A.A.

The convention program featured a number of American guests. Clair W. Ditchy of Detroit, president of the American Institute of Architects, participated in a seminar on civic centers led by Reeve Anthony Adamson, of Toronto Township, himself an architect. A.I.A. national secretary George Bain Cummings of Binghamton addressed a luncheon meeting on architectural assets and liabilities, and Kenneth C. Welch, A.I.A., of Grand Rapids discussed shopping center design.

Awards Presented

At the annual dinner, Toronto Architectural Guild Medals were presented to Hart Vincent Massey and Irving Grossman, with W. L. Somerville, past president of the Royal Architectural Institute of Canada, officiating. Yusing Yiu-Sing Jung and Donald H. Husson received O.A.A. prizes of $100 each.

A total of 65 new members of the Association, 33 of them University of Toronto graduates, were given their certificates. The new members included one girl, Miss Gwyneth Cooper-Jones of Niagara-on-the-Lake, Ont.

(*Continued on page 32*)

CANADA

(*Continued from page 30*)

MAY EQUAL '53 SPENDING ON PLANT AND EQUIPMENT

Canada's Department of Trade and Commerce, though unprepared to disclose in detail findings of its survey of capital spending plans for 1954, nevertheless reveals indications that private investment in plant and equipment will be roughly abreast of 1953, with emphasis on resources development and commercial services.

Two small industrial plants in the Toronto area; Venchiarutti & Venchiarutti, architects. Above: Owatonna Tool Co.; below Norman Wade Co.

The authoritative *Daily Commercial News and Building Record*, construction industry paper, points out that a comparable survey in the U. S. indicates that first quarter investment there will be nearly six per cent above the 1953 first quarter. More surprising, the *News* comments, is the joint announcement of the U. S. Department of Commerce and the U. S. Securities and Exchange Commission that outlays for new plant and equipment by American business will be at an annual rate of $27,960,000,000 during the first quarter of 1954. This is an annual rate of almost a billion more than was invested in the first quarter of 1953.

Why more spending by business now than in 1952 or 1950? The *News* comments:

"Some of this spending represents commitments made two or more years ago. Some of it will be pushed to take advantage of quick-amortization grants. Some will be to replace plants and equip-

(*Continued on page 36*)

A complete vacation resort under one roof, the $3.5 million DiLido Hotel, Miami Beach's newest, opened last Christmas Eve, has 329 rooms, 9 stories, 2 swimming pools, 300 feet of ocean beach, 120 cabañas. Steeltex used in floors and roof. Melvin Grossman and Morris Lapidus, Architects. Robert L. Turchin, Inc., Contractors.

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ng. It costs less to install than other types of forms and einforcement for concrete because Steeltex can be olled out like a carpet by one man (see photo below). Steeltex also saves concrete by minimizing leakage in the freshly poured slab—craftsmen on the floor below can continue working without getting drenched. Steeltex insures a strong floor because embedment of steel reinforcing takes place automatically (see note below). Steeltex allows concrete to cure slowly and properly—guards against excessive cracking—can be installed over any type of joist—will support ample safe loads from 109 lbs. to 886 lbs. per square foot depending on spacing of joists and thickness of slab. No wonder Steeltex is the overwhelming favorite with building designers in America's favorite winter resort.

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See the Steeltex catalog in Sweet's or write for your free copy of a new 24-page, illustrated booklet "Pittsburgh Steeltex, Backbone of Concrete, Plaster, Mortar."

Algiers Hotel, Miami Beach, cost $1 million, has 8 stories, 200 rooms. Steeltex used in all floors and roof. Henry Hohauser & Associates, Architects. Taylor Construction Co., Contractors.

Prize winning Lanai Apartments, Miami, contains 24 units, took top honors in apartment house class in judging at A.I.A. South Atlantic Regional Conference in Miami last spring. Steeltex used only in second and third floors. Wahl Snyder, Architect. Alonzo Riley, Contractor.

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THE RECORD REPORTS

CANADA

(*Continued from page 32*)

ment that have worn out in setting production records in the last few years.

"And some of it is the direct result of more intense competition. . . .

"Then again, some businesses may believe that prophets of a decline will be wrong, just as they have every year for the last decade, and that it will be good and profitable to have maximum facilities."

1953 SECOND-BEST YEAR FOR CANADIAN BUILDING

Construction contract awards in 1953 reached a cumulative total of $2 billion, giving Canada its second-best building year, MacLean Building Reports Ltd. reveals. The all-time record year was 1951, with $2.3 billion; the 1952 total was $1.8 billion.

The December award figures, released at the same time, showed a 29.9 per cent increase over December 1952; awards totaled $128,038,700. An upsurge (23.6 per cent) in the residential category was largely responsible, though the industrial category also showed a decided gain (10.1 per cent) and engineering was up slightly (2.5 per cent).

1953 HOUSE COMPLETIONS SET AN ALL-TIME RECORD

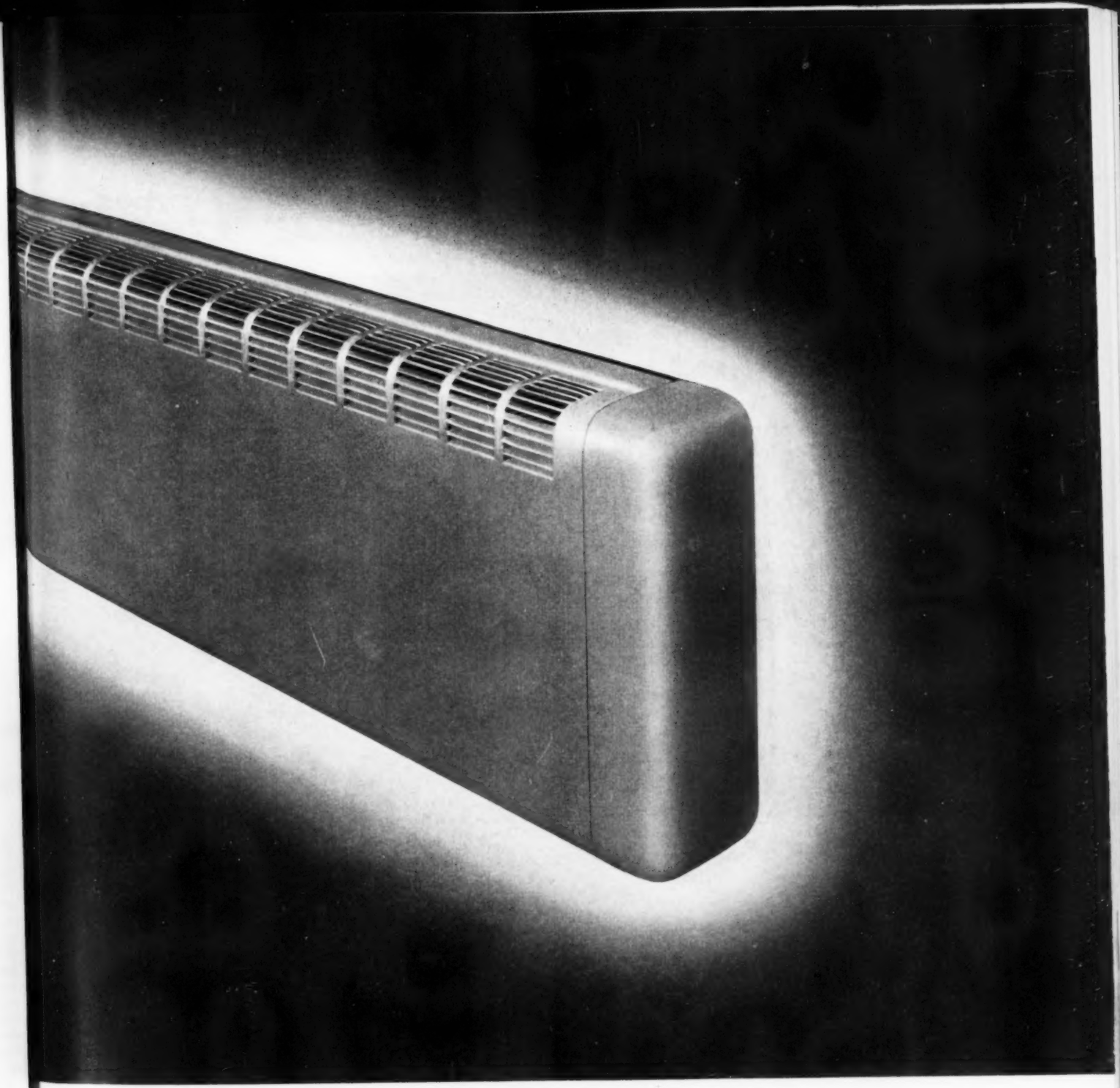
Canada built more houses in 1953 than ever before. While it will be some time before the final figure is known, officials of Central Mortgage & Housing Corporation estimate that completions will total 90,000 to 95,000, including duplexes and apartments.

The previous record of 89,000 completions was set in 1950. In 1951 the total dropped to 81,300 and in 1952 it went down again to 73,000.

According to figures released in the Corporation's *Quarterly Review*, eight per cent of the total dwelling units built in 1953 were two-family and 22 per cent were apartments and row-housing.

However, the *Review* noted, the volume of house building for owner occupancy reached new peaks in the third quarter, with 74 per cent of the houses single-family units.

(*More news on page 38*)



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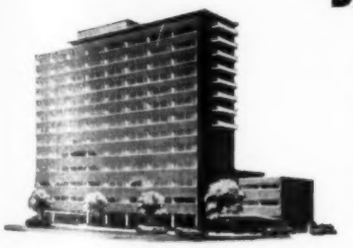

Sill-line will heat the New Pavilion, Jefferson Hospital, Philadelphia, Pa.

Vincent G. Kling, Architect
A. E. D'Ambly, Engineer
W. M. Anderson Co., Htg. Contractor

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By Ernest Mickel

HOUSING BILLS REFLECT ADVISORY GROUP REPORT

REACTION FROM THE HOME BUILDING industry to introduction of identical new housing bills in the House and Senate last month was immediate and favorable. The National Association of Home Builders, through its new president, R. G. ("Dick") Hughes, said it was in accord with principles and objectives of the legislation, though some changes would "be essential" to achieve the President's goals.

The measures introduced by Sen. Homer Capehart (R-Ind.), and Rep. Jesse Wolcott (R-Mich.), chairmen of the Banking committees, sought to translate into a Federal government program the bulk of the major recommendations made in the December report of the President's Advisory Committee on Housing Policies and Programs (ARCHITECTURAL RECORD, Jan. 1954, page 16). There was only slight deviation in the bills themselves from the general policies laid down in Mr. Eisenhower's special message on housing, which Congress had received January 25.

Public Housing: No Level Set

Avoiding any specifics on numbers of public low-rent housing units to be built, the bills extend some preference in public housing to those displaced by code enforcement, closing of structures, highway construction, etc. Rep. Wolcott is said to have convinced the Administration that there was no need for specifying the number of public housing units in the current legislation since sufficient authority for construction already exists in previous laws. The President was expected to seek a limitation on these units through the appropriations committees.

One important aspect of the new measures was discretionary authority under which the President would set interest rates on VA and FHA loans, the maximum not to exceed the average market yield on long term government bonds plus 2.5 per cent. Also included was authority for FHA to "open-end" mortgages, permitting the borrower to obtain more favorable financing for repair and renovation. This could swing open the gates on the vast potential of the "fix-up" market which industry has been estimating in billions per year.

New Life for FNMA

Congress was expected to squabble as much over the secondary market changes proposed by Capehart and Wolcott as over any other single issue. Unlike the report of the President's advisory committee, which advised liquidation of the government-financed Federal National Mortgage Association, the bills aimed at establishing a reincorporated secondary market operation with three functions: (1) to operate as a true secondary mortgage market; (2) to provide financial assistance for special housing programs; and (3) to bring about orderly liquidation of the mortgages acquired by the present Federal National Mortgage Association. Thus a new "Fannie Mae" would replace the old.

(*Continued on page 204*)

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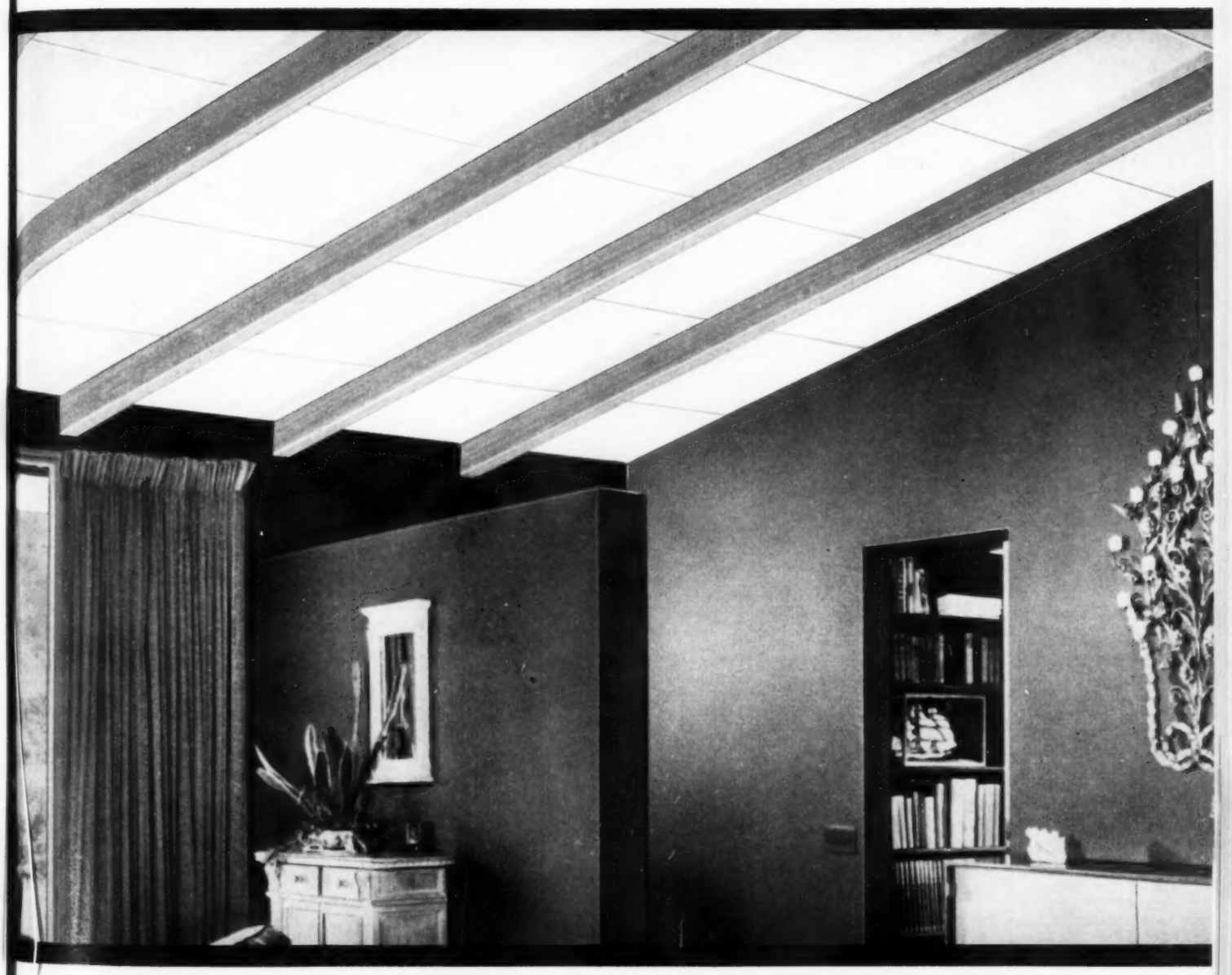

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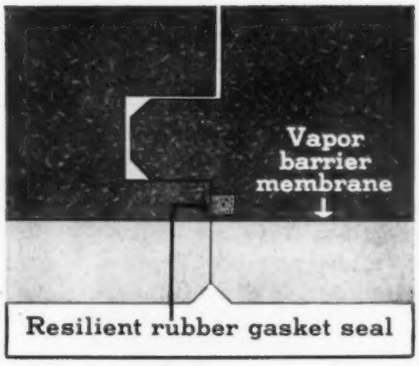

CONSTRUCTION COST INDEXES

Labor and Materials

United States average 1926–1929 = 100

Presented by Clyde Shute, manager, Statistical and Research Division, F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.

NEW YORK

Period	Residential Brick	Residential Frame	Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Steel
1930	127.0	126.7	124.1	128.0	123.6
1935	93.8	91.3	104.7	108.5	105.5
1939	123.5	122.4	130.7	133.4	130.1
1940	126.3	125.1	132.2	135.1	131.4
1946	181.8	182.4	177.2	179.0	174.8
1947	219.3	222.0	207.6	207.5	203.8
1948	250.1	251.6	239.4	242.2	235.6
1949	243.7	240.8	242.8	246.4	240.0
1950	256.2	254.5	249.5	251.5	248.0
1951	273.2	271.3	263.7	265.2	262.2
1952	278.2	274.8	271.9	274.9	271.8
Oct. 1953	283.0	277.3	288.0	295.0	290.8
Nov. 1953	283.2	277.5	288.3	295.2	291.0
Dec. 1953	286.1	280.6	292.6	298.5	295.2
	% increase over 1939				
Dec. 1953	**131.7**	**129.2**	**123.9**	**123.8**	**126.9**

ATLANTA

Period	Residential Brick	Residential Frame	Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Steel
1930	82.1	80.9	84.5	86.1	83.6
1935	72.3	67.9	84.0	87.1	85.1
1939	86.3	83.1	95.1	97.4	94.7
1940	91.0	89.0	96.9	98.5	97.5
1946	148.1	149.2	136.8	136.4	135.1
1947	180.4	184.0	158.1	157.1	158.0
1948	199.2	202.5	178.8	178.8	178.8
1949	189.3	189.9	180.6	180.8	177.5
1950	194.3	196.2	185.4	183.7	185.0
1951	212.8	214.6	204.2	202.8	205.0
1952	218.8	221.0	212.8	210.1	214.3
Oct. 1953	224.9	225.6	225.7	226.7	226.8
Nov. 1953	225.1	225.8	226.0	226.9	227.0
Dec. 1953	223.7	224.1	225.7	226.7	226.6
	% increase over 1939				
Dec. 1953	**159.2**	**169.7**	**137.3**	**132.8**	**139.3**

ST. LOUIS

1930	108.9	108.3	112.4	115.3	111.3
1935	95.1	90.1	104.1	108.3	105.4
1939	110.2	107.0	118.7	119.8	119.0
1940	112.6	110.1	119.3	120.3	119.4
1946	167.1	167.4	159.1	161.1	158.1
1947	202.4	203.8	183.9	184.2	184.0
1948	227.9	231.2	207.7	210.0	208.1
1949	221.4	220.7	212.8	215.7	213.6
1950	232.8	230.7	221.9	225.3	222.8
1951	252.0	248.3	238.5	240.9	239.0
1952	259.1	253.2	249.7	255.0	249.6
Oct. 1953	265.4	259.2	261.9	270.6	263.6
Nov. 1953	266.4	260.0	263.3	272.0	264.8
Dec. 1953	265.8	259.3	263.2	271.9	264.7
	% increase over 1939				
Dec. 1953	**141.2**	**142.3**	**121.7**	**127.0**	**122.4**

SAN FRANCISCO

1930	90.8	86.8	100.4	104.9	100.4
1935	89.5	84.5	96.4	103.7	99.7
1939	105.6	99.3	117.4	121.9	116.5
1940	106.4	101.2	116.3	120.1	115.5
1946	159.7	157.5	157.9	159.3	160.0
1947	193.1	191.6	183.7	186.8	186.9
1948	218.9	216.6	208.3	214.7	211.1
1949	213.0	207.1	214.0	219.8	216.1
1950	227.0	223.1	222.4	224.5	222.6
1951	245.2	240.4	239.6	243.1	243.1
1952	250.2	245.0	245.6	248.7	249.6
Oct. 1953	258.7	251.3	263.8	270.7	266.1
Nov. 1953	257.9	250.1	264.3	271.1	266.3
Dec. 1953	258.6	251.0	264.4	271.2	266.5
	% increase over 1939				
Dec. 1953	**144.9**	**152.8**	**125.2**	**122.5**	**128.8**

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926–29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
index for city B = 95

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926–29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

These index numbers will appear regularly on this page.

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The fully automatic design of the TRANE CenTraVac leaves the system supervisor free for other duties. The only *hermetic* centrifugal refrigeration unit on the market, its exclusive design eliminates shaft seals . . . frequent cause of breakdowns. Direct drive eliminates noisy, power-wasting gear boxes.

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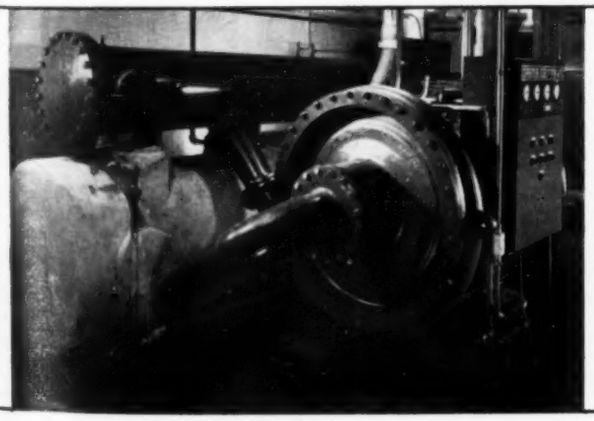

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MACKINTOSH AND ART NOUVEAU

Charles Rennie Mackintosh and the Modern Movement. By Thomas Howarth. Wittenborn (New York, N. Y.) 1953. 7½ by 10 in. 329 pp. illus.

VINCENT J. SCULLY

Department of the History of Art and Architecture, Yale University.

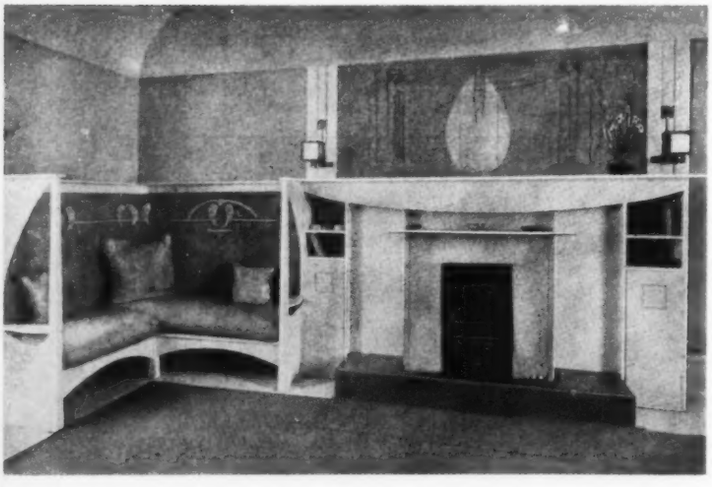
Charles Rennie Mackintosh, 1868–1928, has certainly, as the author of this disarming book states in his preface, remained one of the most "enigmatic" figures in the development of modern architecture. The importance of his Glasgow School of Art, of 1877–99 and 1907–09, has long been recognized by historians of the modern movement. The only other works of his which have been generally known are a few tea rooms, several houses and one or two unrealized projects. Yet upon this small body of evidence architects and historians of the past generation have reached two vaguely formulated conclusions: 1) that Mackintosh was the last and possibly the greatest of the distinguished line of British architects and designers which had been in the forefront of architectural advance throughout the nineteenth century but which had, strangely enough, petered out before 1910; and 2) that Mackintosh's work must have had considerable influence upon the development of modern architecture on the Continent.

In view of these preliminary conclusions, it would seem that the objectives which Mr. Howarth has set himself in his study are the right ones. He has, first of all, attempted to present the whole of Mackintosh's work, in documented form and with excellent photographs. It is obvious that the research involved in this attempt was a labor of love for Mr. Howarth, and it has been eminently successful. The work of Mackintosh can now be seen in its entirety for the first time, and this is important. Some of his early interiors, for example, not reproduced in any modern work, will be a revelation to contemporary architects and historians in their elegance, their clarity and their inspired simplicity. Still the volume of work as a whole remains tragically small, and nothing of any importance appears after the second program of building at the Glasgow School of Art.

In his other objectives Mr. Howarth has possibly been less successful. In presenting Mackintosh's work and the tradition out of which it grew, Mr. Howarth has organized his material in a way which is rather difficult for the reader and in which some sense of important chronological connection and formal development is lost. He begins by discussing the Scottish tradition in building and the architects who were practicing in Glasgow during the nineties. Next he considers Mackintosh's architecture and interior design in great detail but without chronological sequence. Only in a later section does he discuss the earlier work of Webb, Shaw, MacMurde and Voysey. Yet without a knowledge of these architects' experiments one can hardly be felt to understand the full tradition of nineteenth century British architecture out of which Mackintosh developed. His tradition was certainly not simply a Scottish one, as the author earlier, though I am sure unintentionally, might have led us to believe. Similarly, the *art noureau* elements in the earliest designs of Mackintosh and his wife remain unrelated to their sources in Morris, Japanese prints and Aubrey Beardsley until a much later section of the book.

If Mr. Howarth thus does not fully succeed in clearly establishing the relationship of Mackintosh to his tradition, he similarly has some difficulty in presenting a coherent picture of the position of Mackintosh in relation to, and his effect upon, contemporary and later developments on the Continent. There are probably two reasons for this. The first is implicit in the material itself: the fact that even after Mr. Howarth's researches the production of Mackintosh remains thin and, to all intents and purposes, ceases after 1909. This problem is clearly recognized by the author himself, and he is to be congratulated for his admirable restraint in common among biographers, in not claiming more for his subject than the facts themselves warrant. The second reason lies deeper and has, up to now, infected many studies of *Art Noureau*, including the rather fragmentary section of Mr. Howarth's book which deals with the problem. This reason lies in judging the importance of *Art Noureau* forms according to the standards of the later "International Style." That is to say, International Style rectangularity is taken as the expressive and rational norm of modern architecture. Therefore *Art Noureau* curvilinearity is taken as irrational and without important meaning for the future. Giedion's *Space, Time and Architecture* did much to set up this standard and, as he himself notes, Mr. Howarth's attitudes toward the devel-

(Continued on page 48)



Interior by Mackintosh from *Charles Rennie Mackintosh and the Modern Movement* By Thomas Howarth

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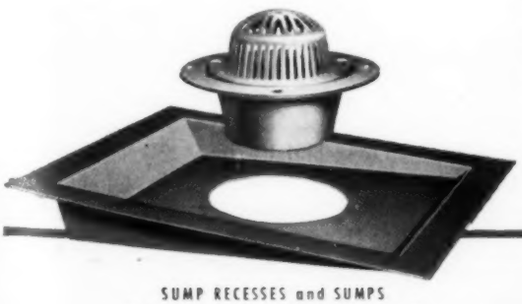

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REQUIRED READING

(*Continued from page 46*)

opment of the twentieth century architecture are largely based on those of Giedion. Yet the standard is undoubtedly a faulty one, and it would be refreshing and perhaps of considerable importance if those historians who are now once more studying *Art Nouveau* would set up a counter standard. It might be something like this: Spatial and structural continuities are, in actual fact, the unique potentials of twentieth century building. Concrete, for example, is by its nature a monolith in which the forces are continuous throughout the shell. Moreover, the pattern of the moment of bending in structures can be shown to be curvilinear. Thus, curvilinear continuities, in which discontinuous differentiation between load and support no longer has meaning, would seem to hold intrinsic possibilities for modern building. Toward these possibilities the whipping, continuous curves of beam and lintel in Horta, the sinuous iron work brackets of Mackintosh, and the undulating walls of Gaudi would seem to have been groping. Certainly they are closer to such possibilities — at least emotionally and plastically — than is the concrete expressed as discontinuous timber work of Perret or the rectangular planarity of Gropius and Mies. Thus *Art Nouveau* would no longer need to be apologized for, and its importance in relation to a long future, in which the International Style might be felt to be only one of many interludes, might be established.

Mr. Howarth's book, like many English publications, could also have been strengthened by a firmer knowledge of contemporary events in America. Mackintosh's tensile interweaving of skeletal elements in his interiors, especially in the library of 1907–1908 in the Glasgow School of Art, should be related to the earlier skeletal interweavings of Stanford White in 1880 (McCormick and Appleton Houses and the Newport Casino), Louis Sullivan in 1890 and 1895 (Wainwright and Guaranty Buildings), Frank Lloyd Wright in 1902, 1904 and 1906 (Willitts House, Larkin Building and Unity Temple). Here again a profound and international principle of structural and visual interweaving, easily of importance beyond the International Style, would seem to have been at work in the late nineteenth and early twentieth centuries. (A minor point in this connec-

(*Continued on page 332*)

COVENTRY

A CONTEMPORARY EXPRESSION OF CATHEDRAL TRADITIONS

A RARE ASSIGNMENT TODAY, *the design of a cathedral poses some problems for contemporary architecture. This design for the new Coventry Cathedral, to replace the one bombed out, represents a thoughtful effort to develop, in modern materials and methods, the traditional thinking on church concepts and inspirational necessities. It was chosen from 219 schemes in competition. On the following pages the architect relates his reasoning.* — Ed.

A CONTEMPORARY EXPRESSION OF CATHEDRAL TRADITIONS

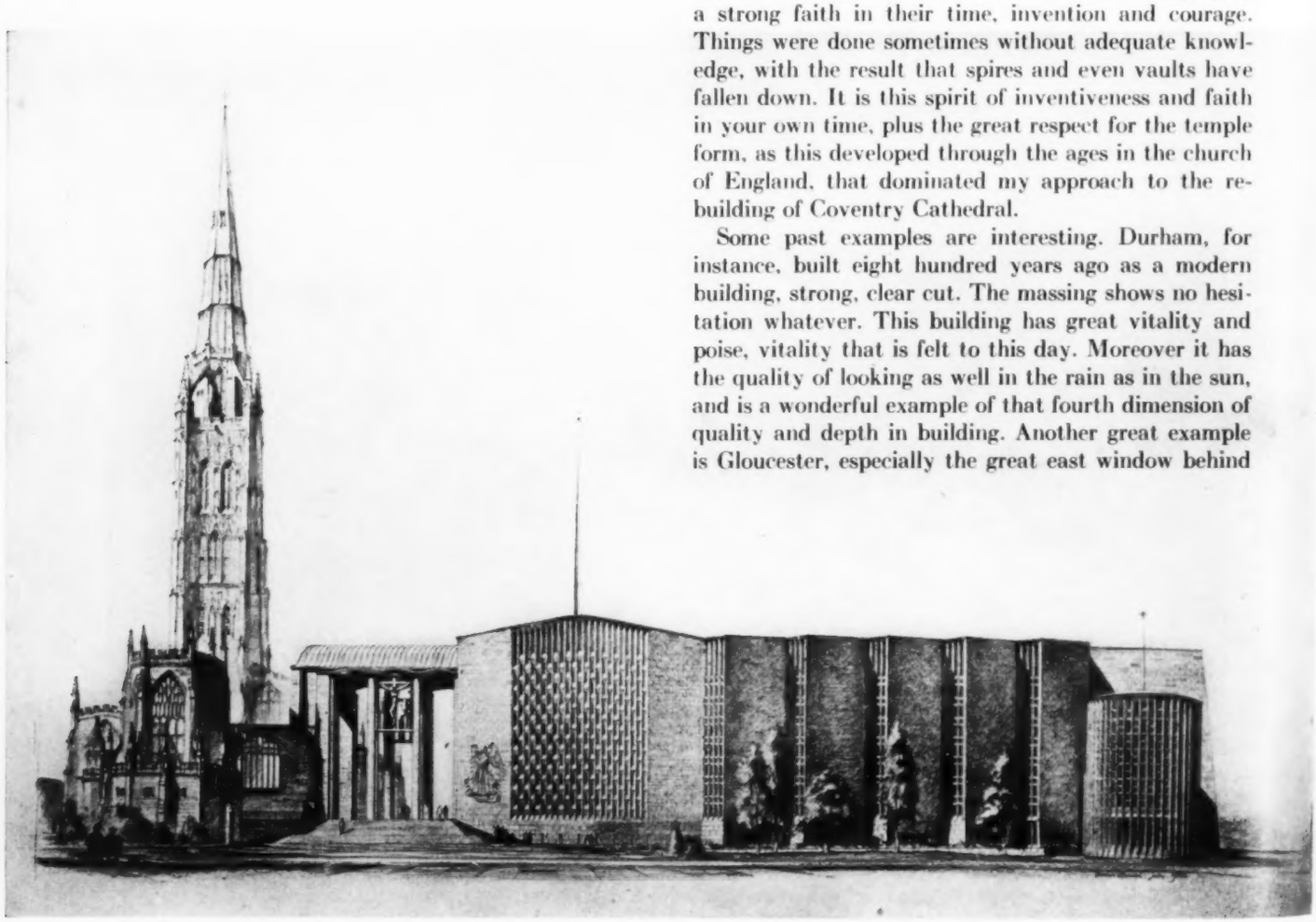
By Basil Spence, O.B.E., A.R.A., A.R.S.A.

WHY did you design a "modernistic" cathedral when there were so many wonderful examples of pure gothic architecture in England which could be your model, giving perfect opportunities for a detailed copy? This question was often put to me during the last three months, while I was travelling through Canada.

The answer is simply that I have studied these ancient cathedrals very carefully, being a Pugin student, for knowledge of Gothic was absolutely necessary before the prize could be awarded; and what I have tried to do is to apply what I thought to be the underlying principles of our own native architecture here in Britain.

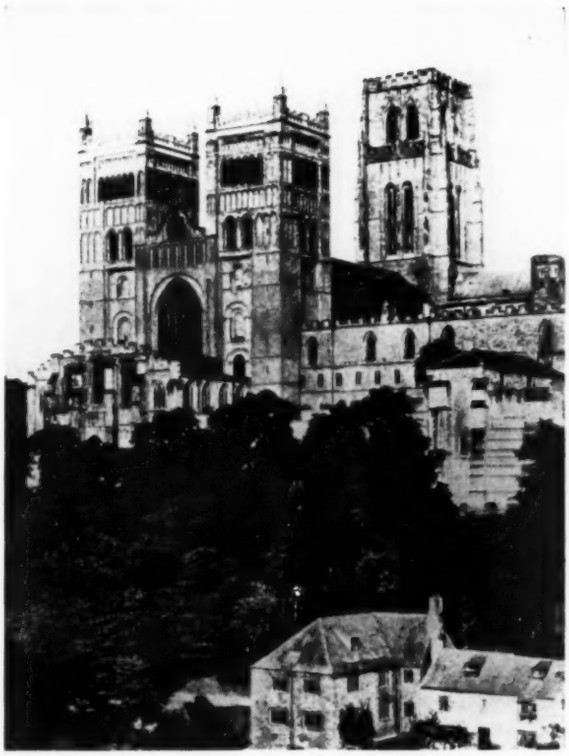
Gothic architecture displays certain qualities, perhaps the most arresting of which is that their buildings were always modern when they were built, displaying a strong faith in their time, invention and courage. Things were done sometimes without adequate knowledge, with the result that spires and even vaults have fallen down. It is this spirit of inventiveness and faith in your own time, plus the great respect for the temple form, as this developed through the ages in the church of England, that dominated my approach to the rebuilding of Coventry Cathedral.

Some past examples are interesting. Durham, for instance, built eight hundred years ago as a modern building, strong, clear cut. The massing shows no hesitation whatever. This building has great vitality and poise, vitality that is felt to this day. Moreover it has the quality of looking as well in the rain as in the sun, and is a wonderful example of that fourth dimension of quality and depth in building. Another great example is Gloucester, especially the great east window behind

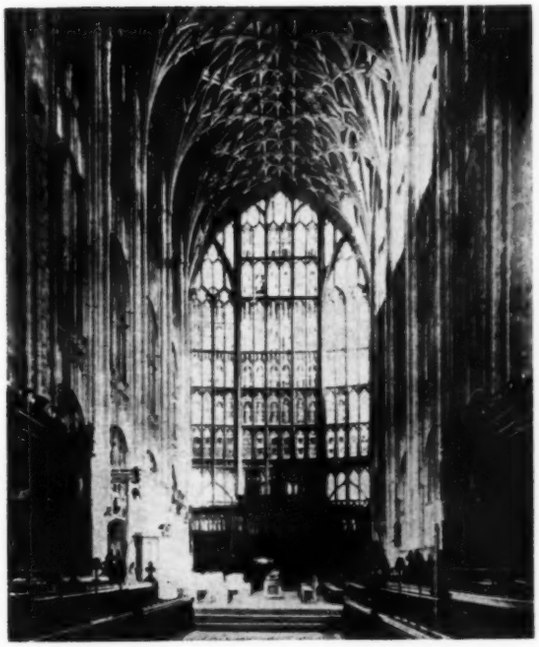


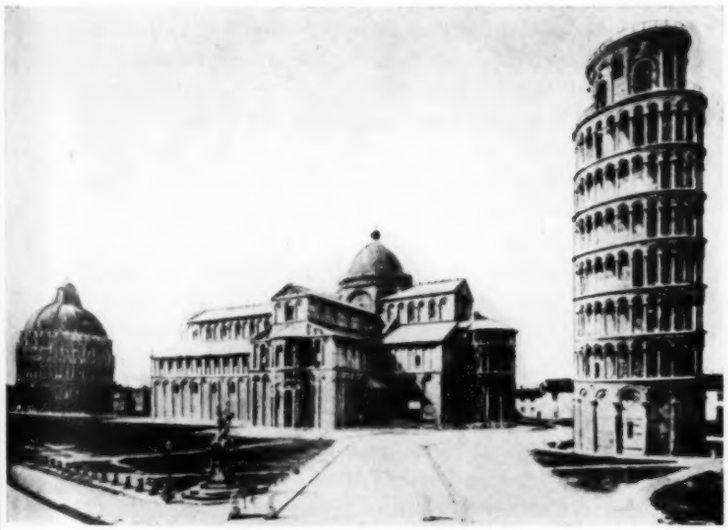
the altar and the choir. Built in the middle of the fourteenth century and replacing a Norman choir, it showed the wisdom of the ecclesiastical authorities in encouraging the latest methods of design and construction, as the Romanesque architecture which it replaced was mostly wall and little window, whereas now this beautiful cathedral has a great east window 70 feet high and 40 feet across.

But England alone does not hold all the examples. An architect must throw his net wide. Let us look at



Among the cathedrals which gave inspiration to the author include Durham (left) for its "great vitality and poise"; Gloucester (below), "especially the great east window"; and Pisa (below, left) for the clarity of its grouping and its "quality"

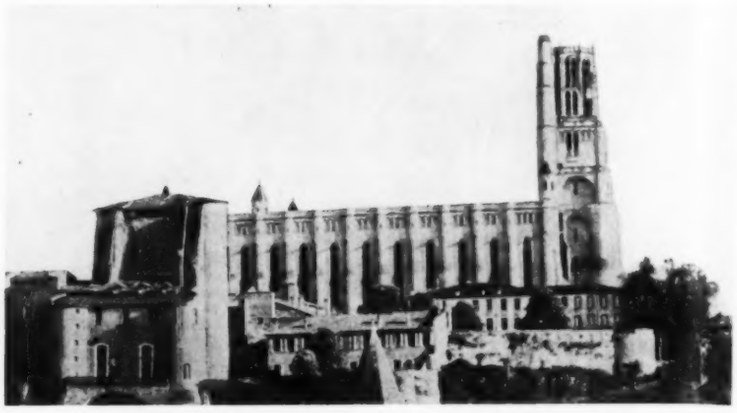




Pisa with the four elements, the basilica, the baptistry, the campanile and the campo santo, placed together with Grecian clarity and exactness, buildings that group in the third dimension and possess the fourth, quality.

At Ravenna, too, there are buildings which inspired me greatly, St. Apollinare in Classe, which is just outside Ravenna, built many hundreds of years ago as an early Christian basilica. This has for its massing a simple dignity of immaculate proportion and fenestration. The elements are all clearly defined, but externally it does not say much. It is a dignified building with an invitation to enter. It is the interior which matters, for here is the altar and it is here where men worship. The altar is enshrined in the most beautiful and dignified material, culminating in the apse, which is one of the most lovely mosaics I have ever seen, still a blaze of colour and as brilliant today as it ever was. The interior is rich with marbles and is flooded with a soft golden light through the alabaster windows. This building truly functions. Entering, the great surprise sweeps the

Also Ravenna (left) — "the altar is enshrined in the most beautiful and dignified materials"; and Albi for its impressive grandeur



visitor off his feet and turns him from a common visitor into a worshipper. It is this philosophy of design which had a strong bearing on the line I took in the rebuilding of Coventry Cathedral.

Very similar also is the effect at Albi in the south of France, a romantic town dominated by the cathedral, which is on the highest ground, standing there like a great hen with little chicks around her. But when you walk up to the cliff-like walls there is an impressive grandeur about the exterior, which is perhaps lacking in many other examples; it is severe and very dignified. It is only when one enters that the real magnificence of this building is appreciated. The philosophy is the same as that at Ravenna.

When I received my conditions for the rebuilding of Coventry, while I was in Edinburgh, I read them and was tremendously stimulated. I would like to quote the preface written by the Bishop and the Provost.

"The Cathedral is to speak to us and to generations to come of the Majesty, the Eternity and the Glory of God. God, therefore, direct you.

"It is a Cathedral of the Church of England. In terms of function, what should such a Cathedral express? It stands as a witness to the central dogmatic truths of the Christian Faith. Architecturally it should seize on those truths and thrust them upon the man who comes in from the street.

"The doctrine and the worship of the Church of England is liturgically centred in the Eucharist. The Cathedral should be built to enshrine the altar. This should be the ideal of the architect, not to conceive a building and to place in it an altar, but to conceive an altar and to create a building.

"In the Anglican liturgy it is the people's altar; the altar should gather the people, it should offer access for worship and invitation to Communion.

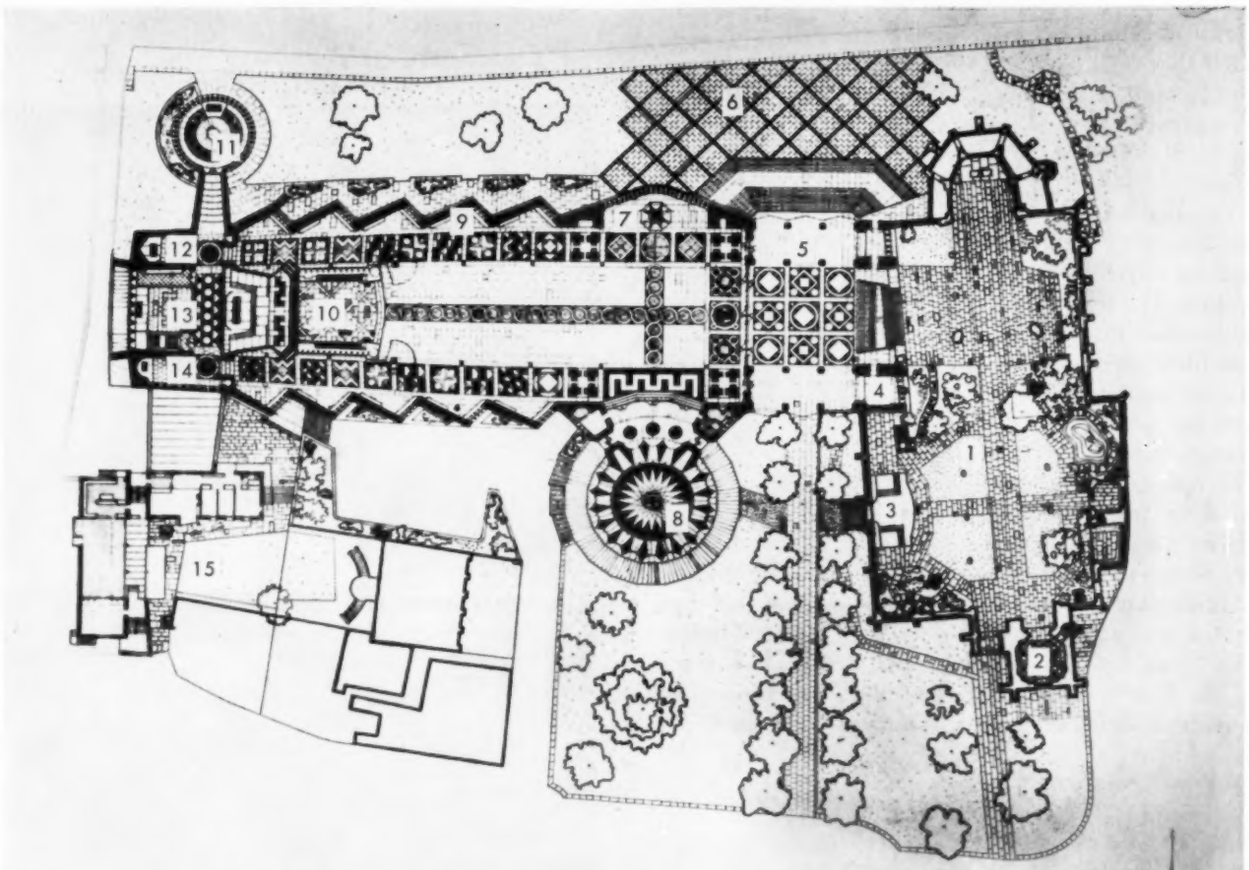
"With the altar — in the unity of worship — there is the preaching of the Gospel among our people of Coventry and the interpretation of the Word.

"The theology of the Cathedral we put before you to direct your thought. Prayer will be with you from the Cathedral Crypt and from the Diocese of Coventry. May God be with you in this great matter."

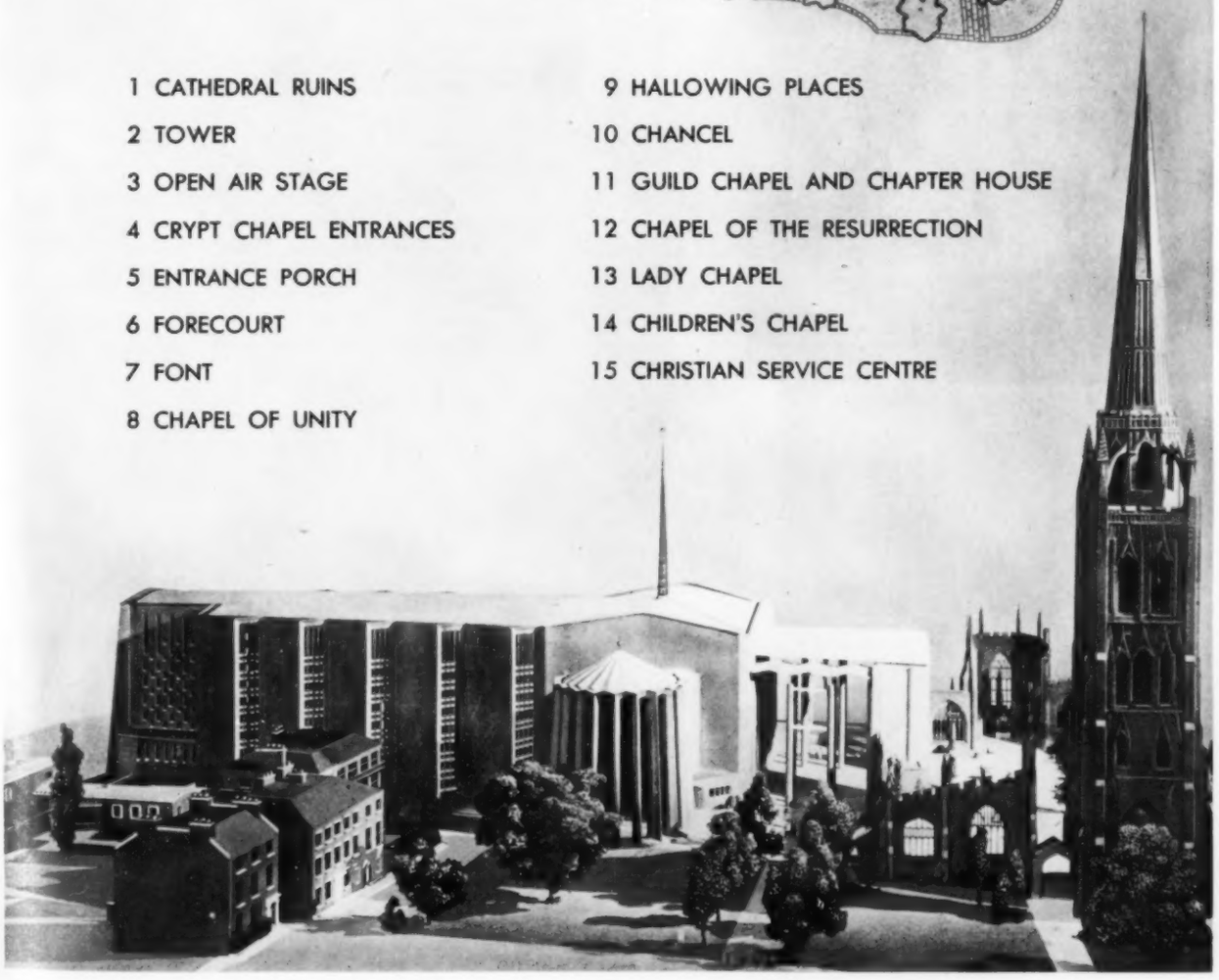
I determined at once to visit the site and see for myself. This Cathedral, as we all know, was bombed during the first of the great German air raids on Britain. It was destroyed by fire bombs on November 14th, 1940. There was great loss of life and property, but when I set foot in these ruins I realized I was walking on hallowed ground. Instead of the beautiful six hundred-year-old roof, this cathedral, because a cathedral it still is, has the skies as a vault. This feeling of reverence was intensified when I walked up to the altar which was erected during the war by a stone mason, from the stones which had fallen from the upper parts of the cathedral. Behind it is the charred cross made of beams that had not quite burnt out. This is an eloquent symbol, and a relic of faith during Britain's darkest hour, and I must admit to feelings of deep emotion when I saw this and read the words carved behind — "Father forgive."

I went to the site and looked out through the ruined windows over the ground reserved for the cathedral, and in a flash I saw in my mind's eye a beautiful new one growing out of the old, keeping the ruins as an integral part of the whole scheme. The picture I saw was a sparkling and beautiful altar at the end of a long vista backed by a great picture, the body of the nave spread out in front of the altar, but I did not see it clearly because in front of my eyes floated the bodies of the saints and the martyrs and it was through their bodies that the altar could be seen. We all know the price of this new altar — 1200 people killed and many, many more maimed and injured for life, 5,000 homes wiped out even with the people in them, 60,000 homes damaged, apart from the tremendous industrial damage. So the new altar will be seen through the saints and martyrs.

I took back with me to Edinburgh this idea seed, which continued to grow from that moment. Part of the new accommodation required is a chapel of unity where all church denominations could worship. This is a wor-



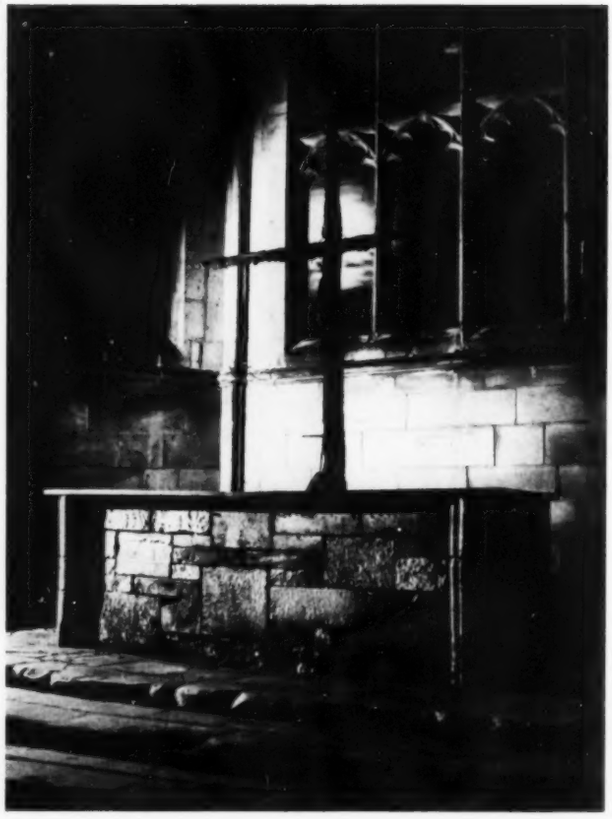
1 CATHEDRAL RUINS
2 TOWER
3 OPEN AIR STAGE
4 CRYPT CHAPEL ENTRANCES
5 ENTRANCE PORCH
6 FORECOURT
7 FONT
8 CHAPEL OF UNITY
9 HALLOWING PLACES
10 CHANCEL
11 GUILD CHAPEL AND CHAPTER HOUSE
12 CHAPEL OF THE RESURRECTION
13 LADY CHAPEL
14 CHILDREN'S CHAPEL
15 CHRISTIAN SERVICE CENTRE

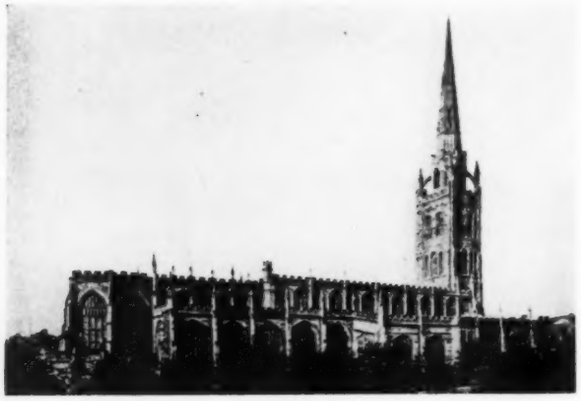


derful idea, worthy of strong architectural expression. I felt that this chapel could express unity and strength, and looking for a symbol to express it, I chose the star — a great star which will form a pattern on the floor, as the Star of Bethlehem was the first sign of Christian unity.

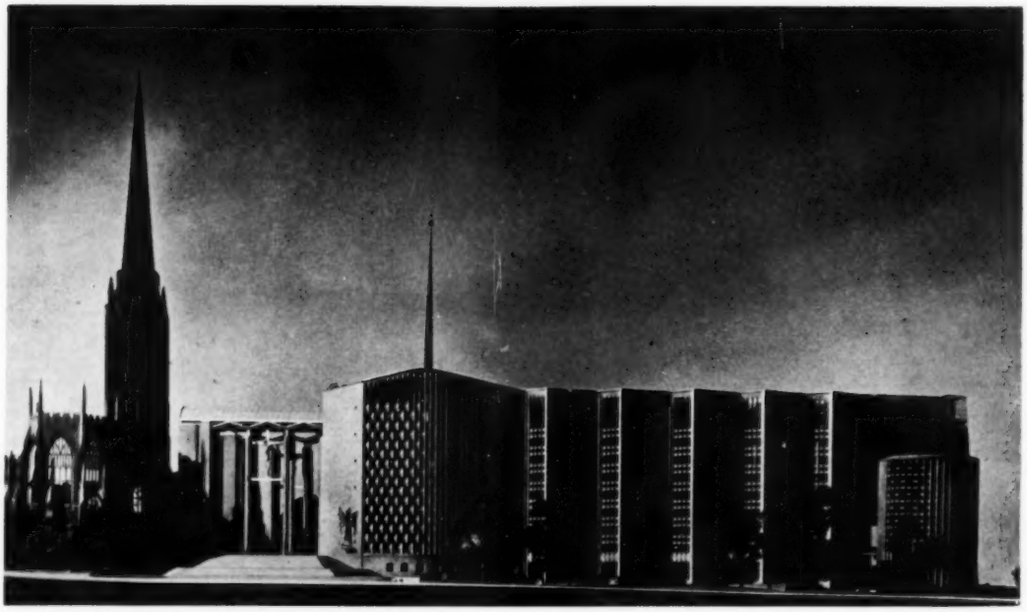
So opposite this chapel inside the new cathedral is the font. Because the font represents birth and virility and the rebirth of this cathedral, it is a very important feature. The font has a cover, a tall spire-shaped form, which rises to 80 feet. Behind it is a great window of 198 little windows. In each of these, I hope to have stained glass designs representing the saints in infancy, and the window will be carried out in the clear pure colours of birth and innocence.

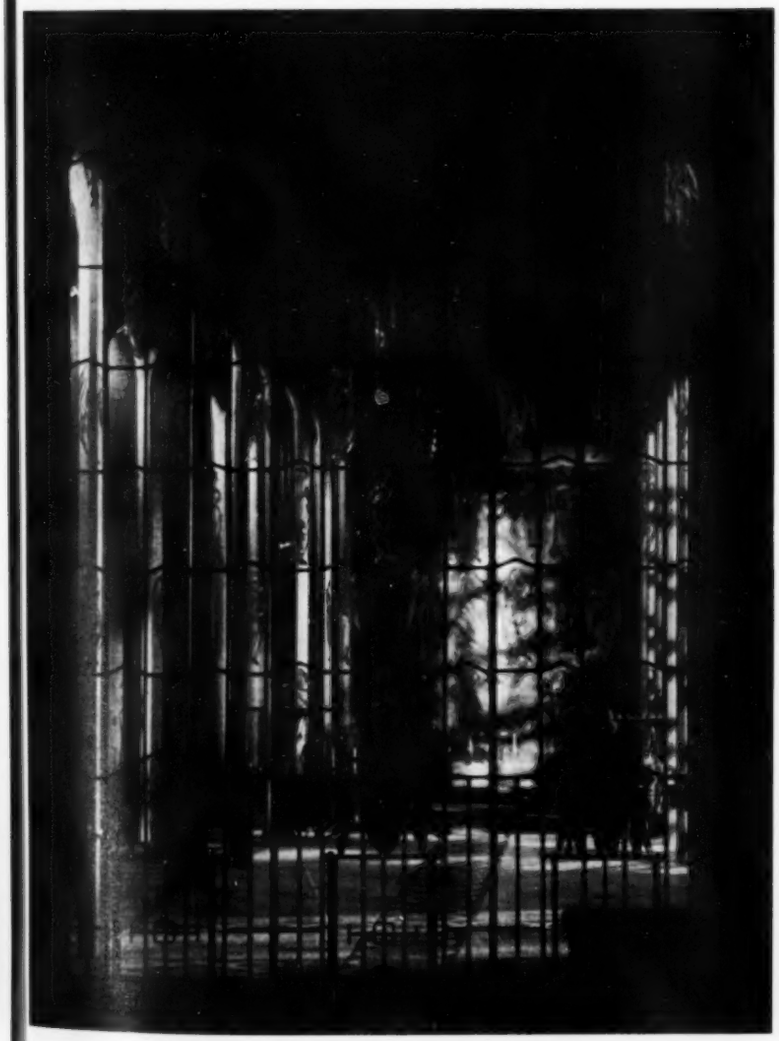
People entering the cathedral first will see no other windows apart from this one, but their eyes should be drawn toward the altar, and beyond it to a great tapestry over 80 feet high and over 40 feet across. On this, in brilliant colours will be woven the figure of Our Lord seated in the glory of the Father with the four beasts, exactly as Saint John the Divine describes in his vision of the fourth chapter, Book of the Revelation. This tapestry is being designed by Graham Sutherland.





From Coventry Mr. Spence found inspiration in the simple altar built by a stone mason in the ruins of the cathedral, "a relic of faith during Britain's darkest hour," and from the ruins themselves, which he insisted be preserved as an integral part of the scheme for the new church





". . . I saw in my mind's eye a beautiful new one growing out of the old . . . a sparkling and beautiful altar at the end of a long vista . . . but I did not see it clearly because in front of my eyes floated the bodies of the saints . . ."

As you walk toward the altar you will realize that the windows reveal themselves as you reach them, because they are blotted from view by cliffs of stone, and you will only see them as you pass them.

There are five pairs of windows 70 feet high on opposite sides of the nave, each pair representing an age of man. The first pair grow from our birth — and represent childhood. These are strong virile windows in stained glass, strongly patterned. The colour is predominantly green and other colours allied to green, such as yellow and blue. These will present the young shoots growing out from the ground to the full height.

The next pair shows childhood growing into manhood and womanhood, the age of passion and strength, and these windows are predominantly red.

The next are the middle life with the experiences of middle life represented by the colours of the rainbow, some dark, some light, some brilliant and some dull.

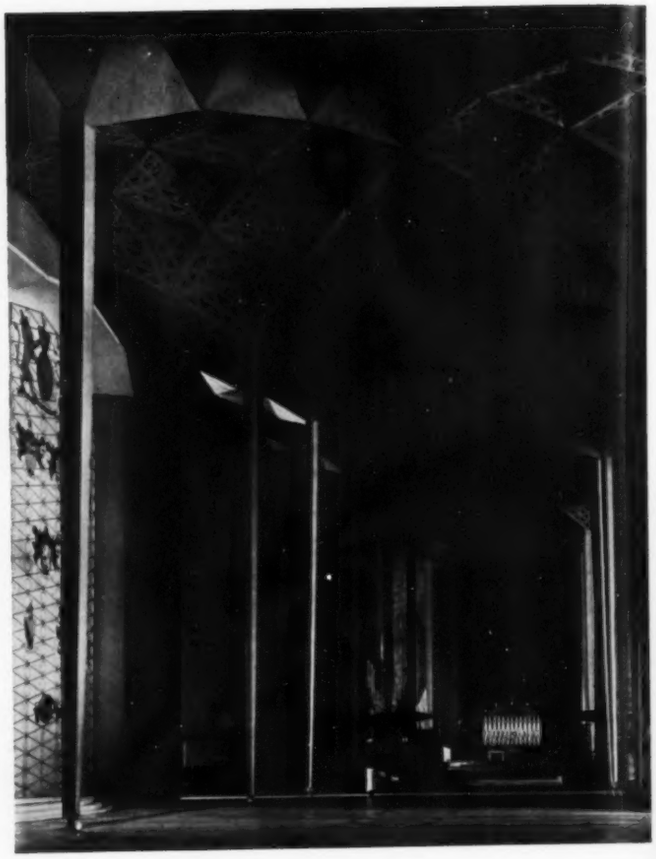
Still going toward the altar, the next pair represent the richness and wisdom of old age and are deep blue and purple, flecked with gold.

You will notice that the windows are gradually becoming darker and richer as you move toward the altar; the last pair represent the after-life. These are the altar windows of golden glass. The light from these windows shines directly on to the altar, so as you approach the holy table there will always be this aura of golden light around it. But when you reach the altar and turn around, for the first time you will see all the windows at once. I do not know of a church so far built that does this. As you know life, you experience the present and can look back into the past, but you cannot see the future. But when you reach the altar, the whole pattern is revealed for the first time.

The two ranges of windows leading up to this climax represent on the right, the perfect side which is God, and on the left, the "man" side, a reflection of the perfect side but imperfect in its reflection, as man is always striving for perfection — rather like trees reflected in a pool disturbed by the wind. One is the truth and the other is rather an uncertain reflection of the truth. But at the altar both are joined in a blaze of glory.

As an instance of this, the wisdom window on the man side represents a great and beautiful chalice as the most beautiful thing a man can make in his wisdom. This is a strikingly rich window showing this chalice studded with jewels and brilliant in purple, blue and gold. But on the God side, the window represents the lily of perfection as the miracle of planting a seed. Something so perfect as a lily growing cannot be imitated and even under a microscope the lily is still perfect.

A cathedral in England has a greater purpose than a church in which only to hold services. The Cathedral will open every day and must speak all the time, even when there is no sermon to be heard or anthem to be listened to. It must speak itself. The object of this cathedral is to turn the visitor who may go into the cathedral alone for a half hour's peace — to turn him from a visitor into a worshipper.

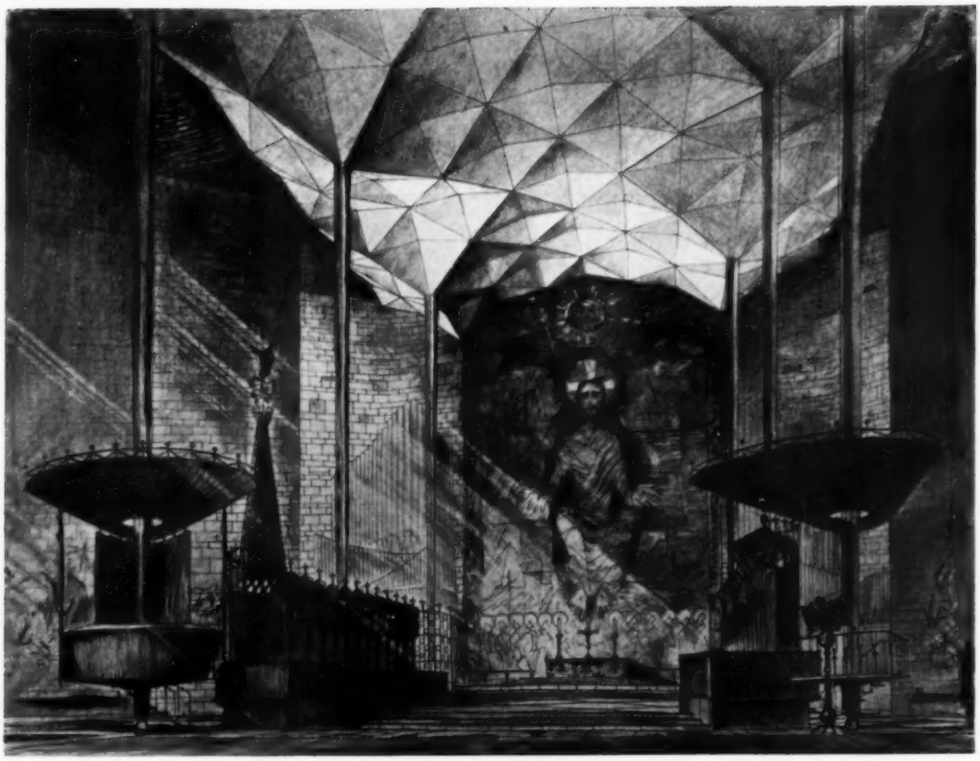


Work has already started. The glass, which is possibly one of the largest single commissions for stained glass ever given, has already started. When these windows are shown to the world, it will be realized that the artists in the Royal College of Art are recreating the spirit that existed when the glass was put into Chartres and in York and Canterbury. These windows are contemporary but they pay great respect to the past, and knowledge from the past is used as an inspiration and a stimulus.

The tapestry designs by Sutherland are well advanced, and this brilliant English artist will produce a tapestry for what must surely be one of the most difficult problems any artist in recent years has had to face — an ecclesiastical subject on the vast scale of 80 feet high and 40 feet across.

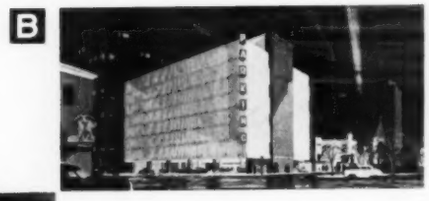
Work has started too on the great west screen of engraved glass. The artist, John Hutton, has been designing and experimenting with glass engraving for the last year. This wall of glass is larger than the tapestry.

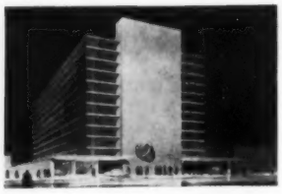
The organ, which should in itself be a work of art, has been ordered; and it may be worth while noting that the Canadian College of Organists has already donated $30,000 towards this. And finally, the stone for the Cathedral is being cut now, and we hope to start on excavations and site during April 1954.

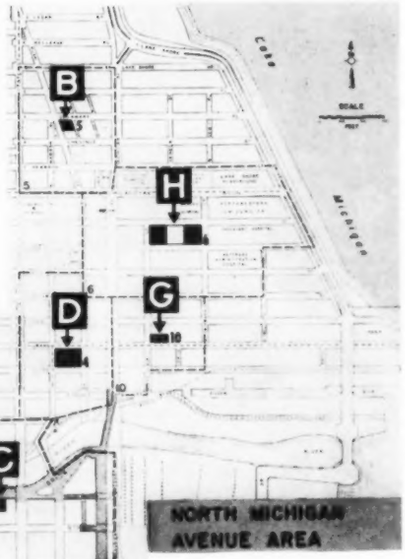


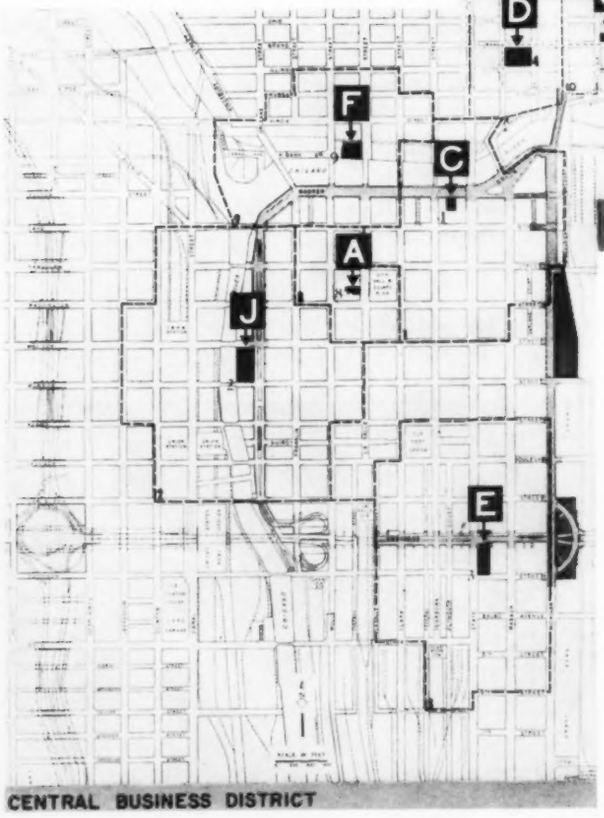
The vault will be a free standing structure within the building, of concrete on 14 steel columns or legs resting on crystal balls. The author mentions in his notes the inspirational quality of the vault in King's College Chapel, Cambridge (shown at left)

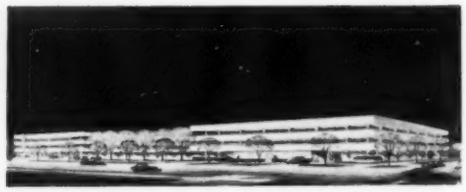
NINE GARAGES FOR CITY OF CHICAGO M

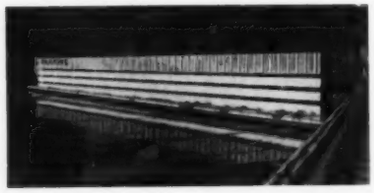












GO MAKE A FRONTAL ATTACK ON PARKING PROBLEM

Variety of Concepts by Nine Different Architects

GENERAL ADMINISTRATION:

The Chicago Department of Public Works, Bureau of Engineering:

Martin H. Kennelly, Mayor

V. E. Gunlock, Commissioner

Dick Van Gorp, Chief Engineer

M. J. Glicken, Architect

CONSULTING ENGINEERS:

De Leuw, Cather & Co.

F

G

THE ARCHITECTS:

A *Friedman, Alschuler and Sincere*

B *Loebl, Schlossman and Bennett*

C *Shaw, Metz and Dolio*

D *Schmidt, Garden and Erickson*

E *Everett F. Quinn and Associates*

F *Graham, Anderson, Probst and White*

G *McClurg, Shoemaker and McClurg*

H *Holabird and Root and Burgee*

J *Naess and Murphy*

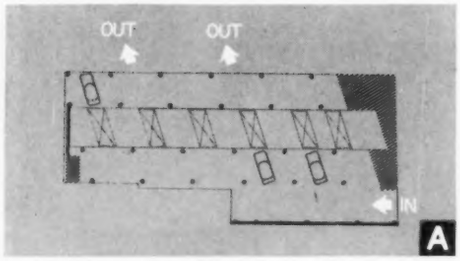
A PROBLEM typical of nearly every American city is that of providing adequate and convenient off-street parking for the increasing stream of cars that is strangling urban commerce and mobility. Consultants warn that, unless attacked, the problem will become worse, since suburban growth and the development of peripheral shopping centers is expected to offset only in part the anticipated population increase and wider ownership of cars.

In characteristically vigorous fashion, Chicago is doing something about it — constructing nine garages to provide approximately 6650 parking spaces; a multi-project which should yield tangible relief to that mid-west metropolis within 18 months. Total cost of land and buildings will approach 22 million. Of interest is the fact that the city has hired various local architectural firms and engineering consultants to design the structures. The program culminates nearly ten years of effort by city officials, civic organizations, business firms, and individuals, and received its official start when the city authorized the bond issue in September, 1952. The development is based upon a complete study of the entire problem made by De Leuw, Cather & Co., Engineers, who were retained by the five banking firms marketing the bonds.

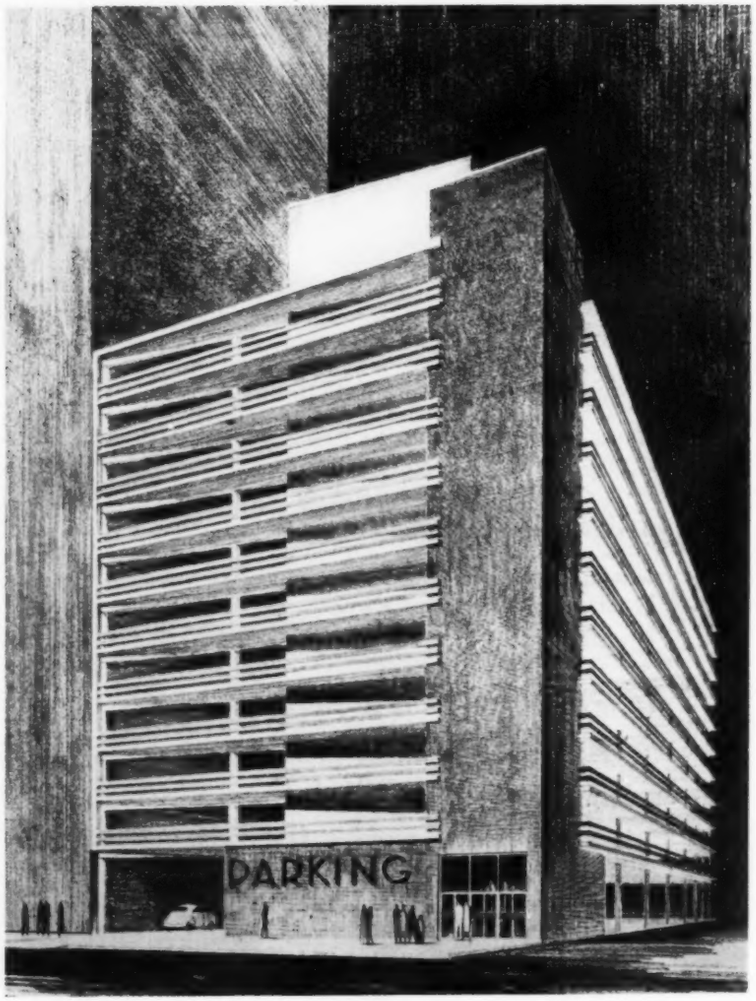
Five of the nine structures will be built in the "Loop" or central business district (lower portion of map), and four in the North Michigan Avenue area (top of map). Construction of three is under way; the remainder will be advertised by summer; and all of the buildings are scheduled for completion by summer, 1955.

Each of the garages will be classified as fireproof and will be built with floors and ramps of flat slab or concrete pan construction and with parking areas open to the air. Several have precast or aluminum louvers to minimize noise and screen the cars from view. In addition to concrete spandrels, three schemes have aluminum railings for peripheral barriers while one design features vertical cables held in tension by special springs as an outer guard. Certain exterior portions will have brick or granite facings. Waiting rooms, offices, etc. will be of glazed tile with aluminum trim, windows, and doors.

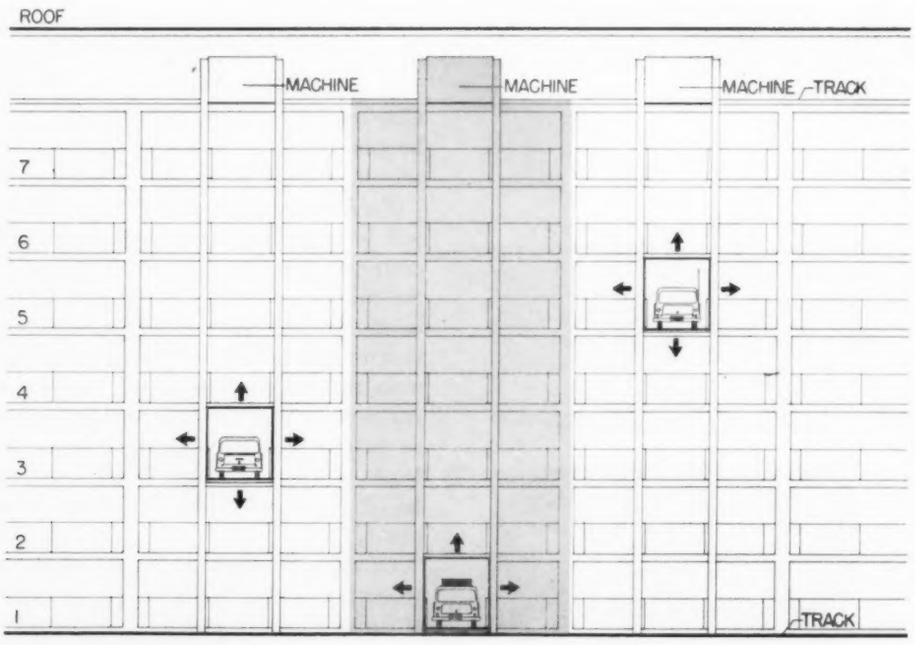
Of the nine schemes, six are of the ramp type, while three are of the "hoist" type, described more fully on the following two pages.

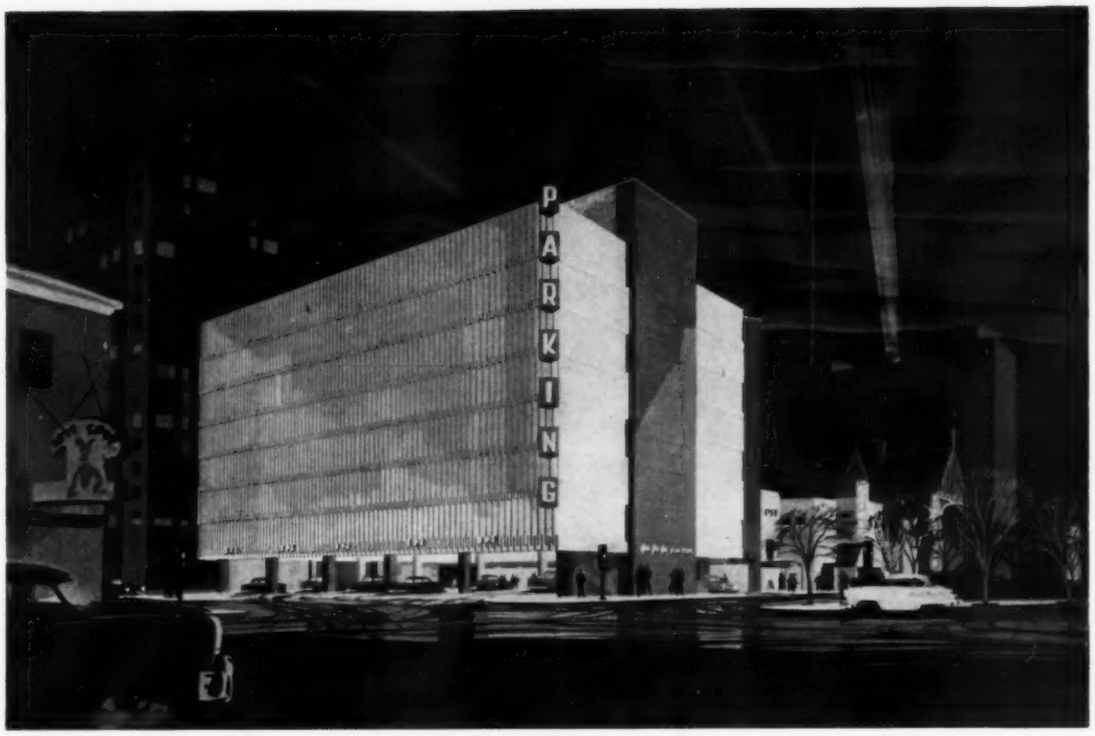


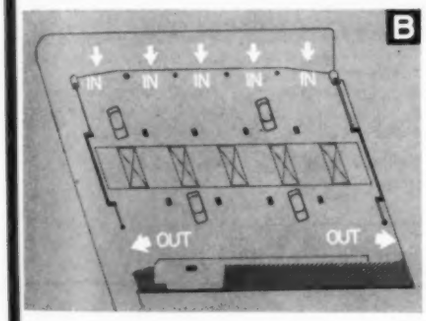
The 12-level scheme designed by Friedman, Alschuler and Sincere, Architects (right and above) will accommodate 495 cars and is intended primarily for short time parkers. The hoist shaft, separating entrances and exits, will be brick sheathed, with granite faced lobby. Open floor slabs of architectural concrete will have aluminum guard rails



Three of the nine facilities will be of the "hoist" type, using equipment developed by the Bowser Engineering Co. of Des Moines, Iowa, which features an elevator suspended from a crane so that the automatically controlled travel to or from a preselected parking stall is vertical, horizontal, or diagonal. It is claimed for the system that the average time required to park or deliver a car is one minute. The diagram below illustrates the scheme.







Architects Loebl, Schlossman and Bennett's 8-level scheme for 420 cars (above and left) is characterized by an outer screen of precast louvers to hide cars yet allow ventilation. The central elevator shaft is glazed brick faced

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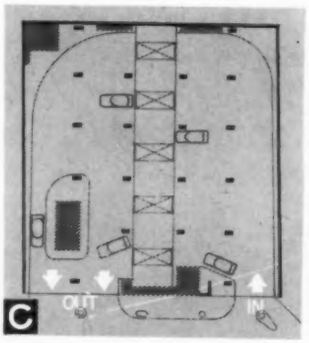
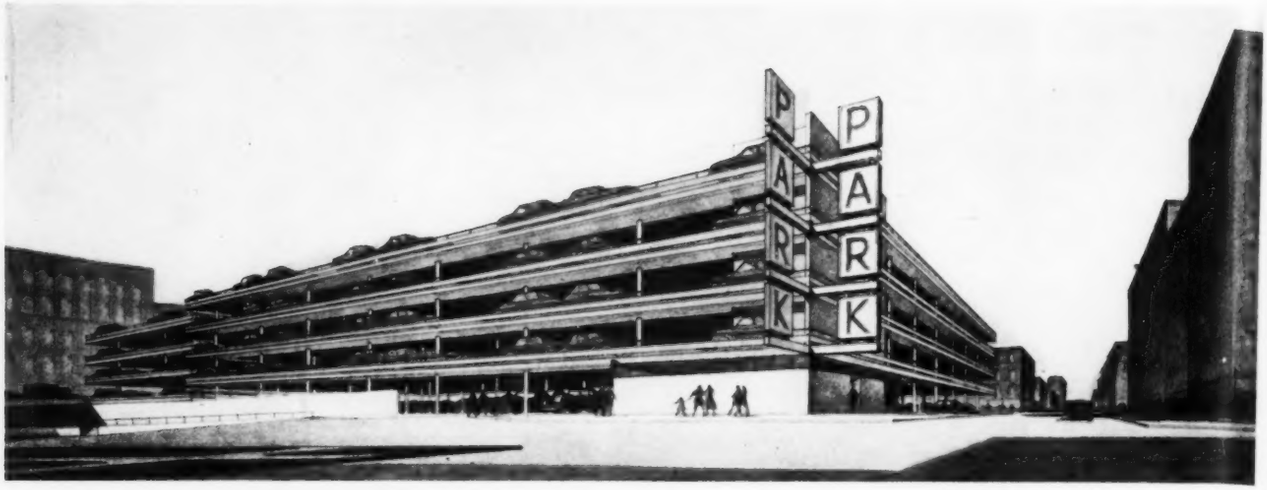
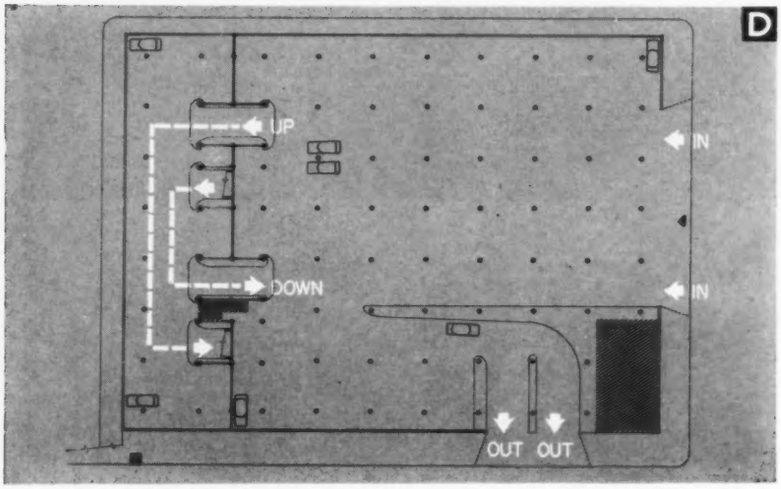
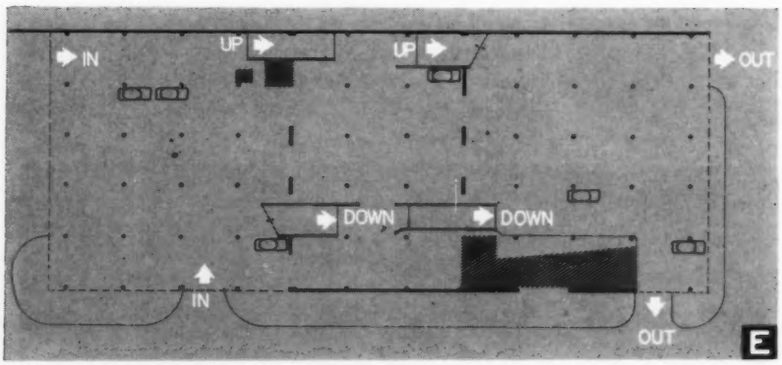
The design by Shaw, Metz and Dolio, Architects, (below and right) will park 715 cars on 14 levels and features a protection barrier of stainless cables in tension. Lift shaft is blue glazed brick with aluminum sculpture by Milton Horn



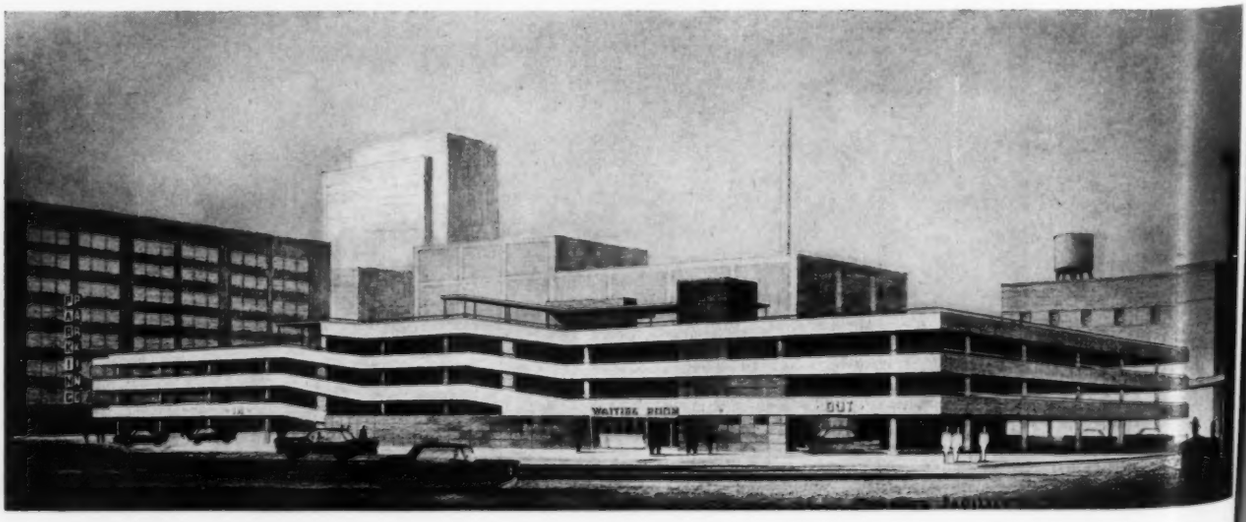


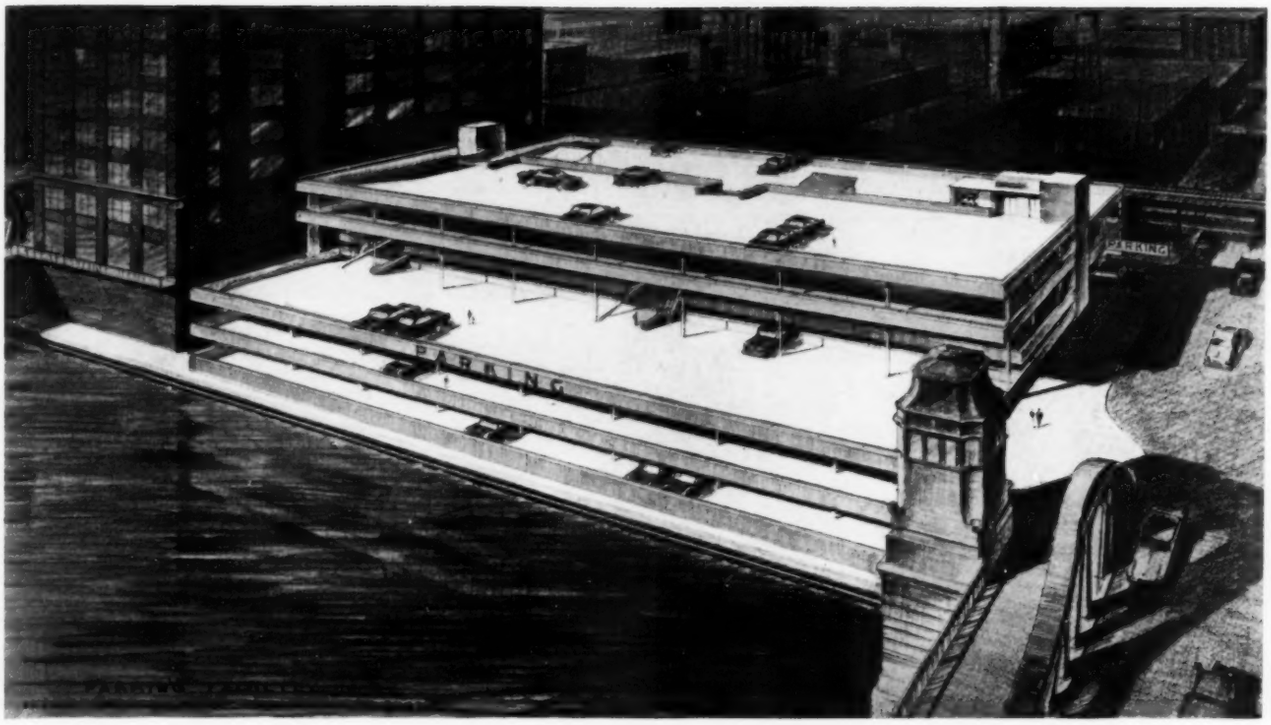


A ramp-type structure for 1000 cars, the garage designed by Schmidt, Garden and Erickson, Architects (above and left) consists of five split levels. The horizontal treatment is emphasized by the concrete and aluminum guard rails; entrances are of face brick. Intensity of perimeter lighting automatically controlled photo-electrically

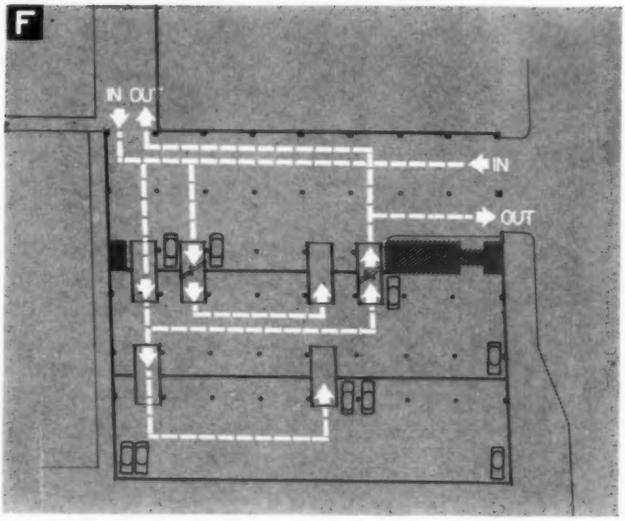


Capable of accommodating 665 cars, the ramp-type garage designed by Everett F. Quinn and Associates, Architects (below and left) is a split-level scheme four stories in height. The granite and face brick treatment at the entrances contrasts with the perimeter concrete guard rails at the various levels

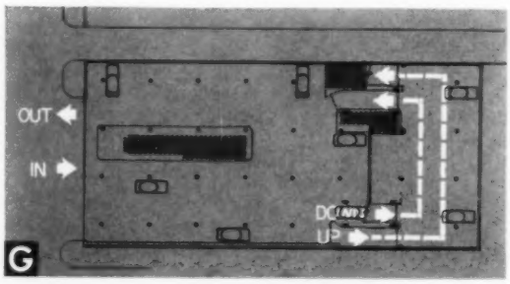


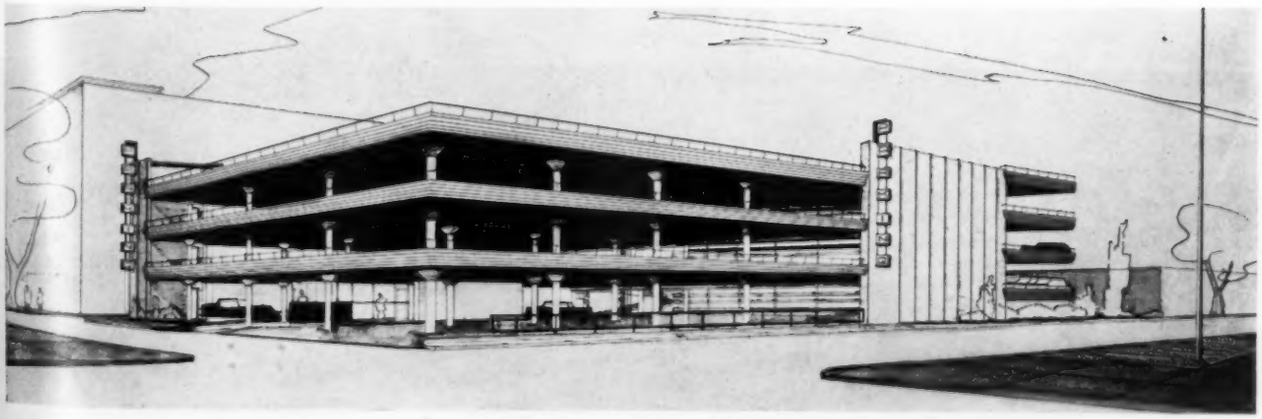


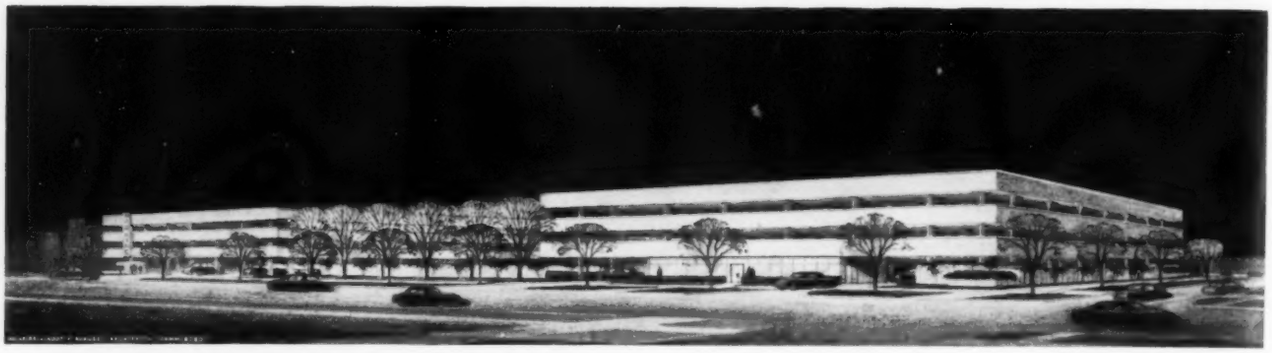
Part three level — part five, the design by Architects Graham, Anderson, Probst and White (above and right) will park 650 cars

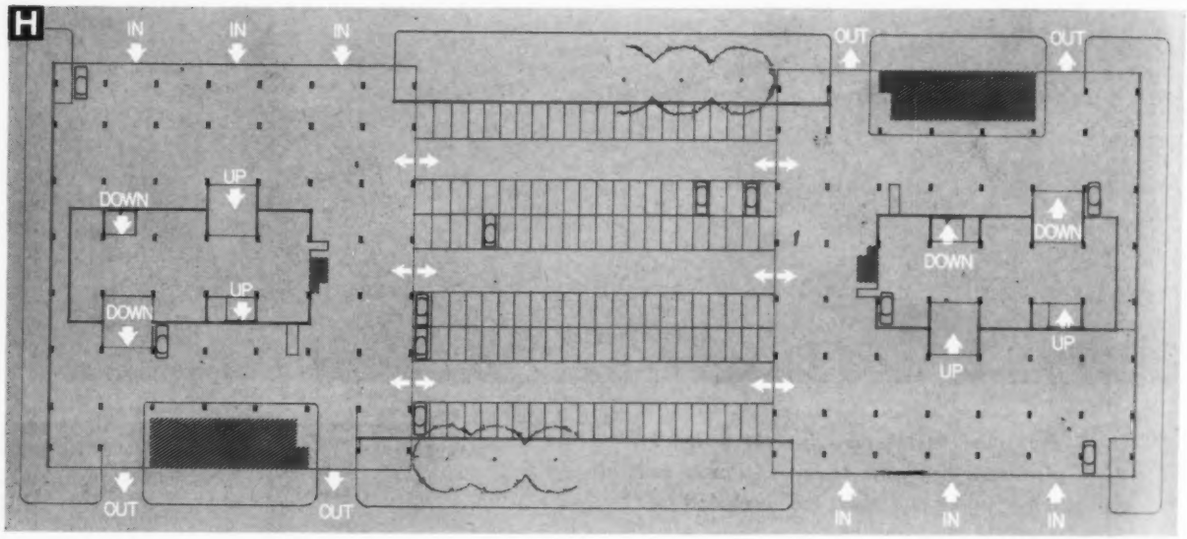


Architects McClurg, Shoemaker and McClurg's four level scheme (plan and rendering below) is designed to accommodate 260 cars









Unusual solution by Architects Holabird and Root and Burgee (plan and rendering above) consists of two buildings bounding a central parking lot enclosed by two serpentine walls

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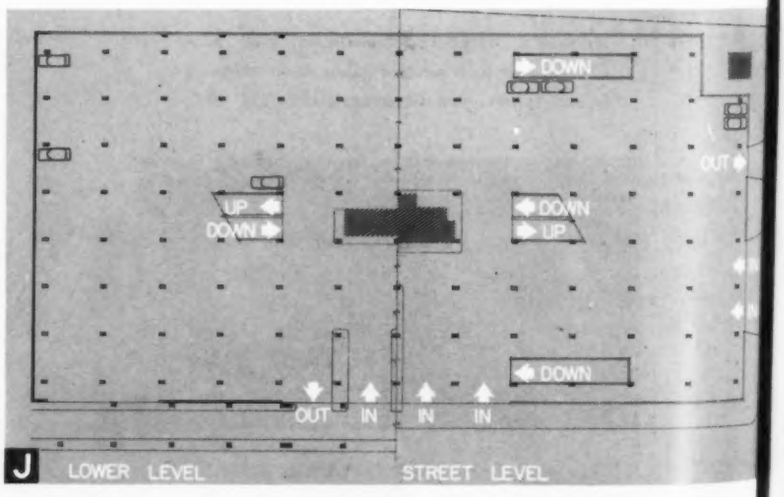
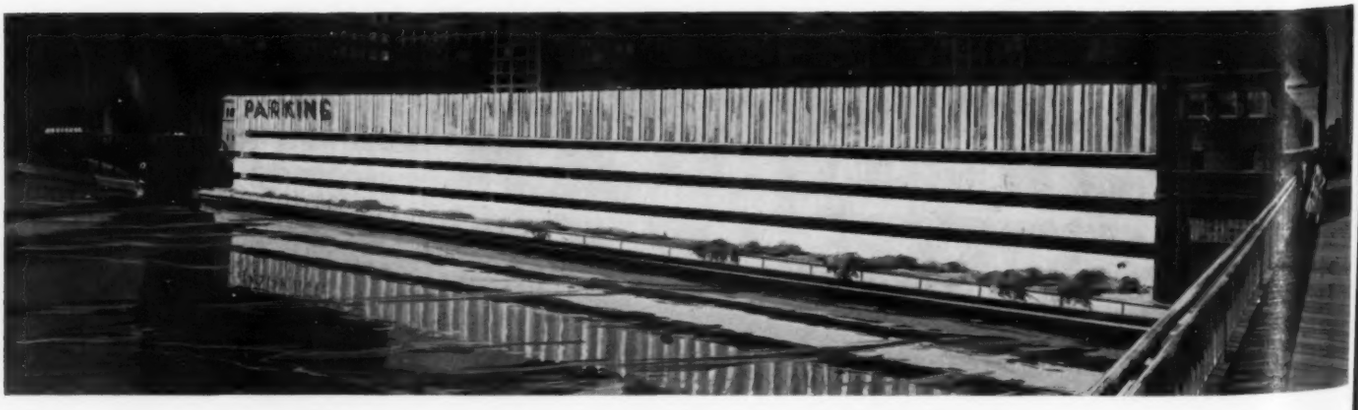
Prominently located on South Wacker Drive, the five level, ramp-type garage designed by Architects Naess and Murphy (right and below) will park 1230 cars





ARCHITECTURAL RECORD'S BUILDING TYPES STUDY NUMBER 208

Hospitals and Health Facilities

FEDERAL HOSPITAL PROGRAM TO ADD NEW BUILDING TYPES

HOSPITAL BUILDING TYPES STUDIES IN ARCHITECTURAL RECORD

Hospitals	July	1937
Chronic Hospitals	Aug.	1938
Hospitals	Dec.	1939
Health Centers	Sept.	1940
Hospitals	Aug.	1941
Hospitals in Wartime	Aug.	1942
Hospitals	May	1943
The General Hospital	Aug.	1944
Coordinated Hospital Service Plan	Aug.	1945
Elements of the General Hospital	June, July, Aug.	1946
Hospitals	June	1947
Type Plans for the General Hospital	Jan.	1948
Hospitals	May	1949
Hospitals	Feb.	1950
Mental Hospitals	Oct.	1950
Tuberculosis Hospitals	Apr.	1951
Hospitals and Health Centers	Oct.	1951
Revised Elements of the General Hospital	Apr.	1952
Hill-Burton Hospitals	Oct.	1952
Hospital Planning Studies	Feb.	1953
Mental Hospitals	Nov.	1953

BOOKS:

"Psychiatric Sections in General Hospitals," by Paul Haun, M.D.

"Design and Construction of General Hospitals," by U. S. Public Health Service, published jointly by ARCHITECTURAL RECORD and *The Modern Hospital*

IN HIS RECENT MESSAGE to Congress, President Eisenhower made a strong plea for extension and broadening of the federally-aided program of building health facilities. He told the Congress:

"The modern hospital — in caring for the sick, in research and in professional educational programs — is indispensable to good medical care. New hospital construction continues to lag behind the need. The total number of acceptable beds in this nation in all categories of non-Federal hospital services is now about 1,060,000. Based on studies conducted by state hospital authorities, the need for additional hospital beds of all types — chronic disease, mental, tuberculosis, as well as general — is conservatively estimated at more than 500,000.

"A program of matching state and local tax funds and private funds in the construction of both public and voluntary non-profit hospitals where these are most needed is therefore essential."

The president then asked for extension of the program into new types of buildings. In his own words:

"I present four proposals to expand or extend the present program:

"1. Added assistance in the construction of non-profit hospitals for the care of the chronically ill. These would be of a type more economical to build and operate than general hospitals.

"2. Assistance in the construction of non-profit medically supervised nursing and convalescent homes.

"3. Assistance in the construction of non-profit rehabilitation facilities for the disabled.

"4. Assistance in the construction of non-profit diagnostic or treatment centers for ambulatory patients."

To activate the president's proposals, bills have been introduced in both the House and the Senate. The bills both call for the same authorization of federal funds: $20 million for diagnostic and treatment centers; $20 million for chronic disease hospitals; $10 million for rehabilitation facilities; $10 million for nursing homes; and $2 million for state surveys of needs, or a total of $62,000,000. These amounts would, of course, be in addition to the federal funds for normal hospital construction under the Hill-Burton program. The president asked for $50 million for that program in "fiscal '55."

000,000 has been completed in the last six years without such aid."

It doesn't require any reading-between-the-lines to see that the administration, however much it is interested in health, has given close inspection to the organization and operation of the existing federal hospital program. It has found them good. It has found a sound base on which to continue additional hospital construction and add new types of health facilities. Here the president said: "I recommend that . . . special funds be made available to the states to help pay for surveys of their needs. This is the procedure that the Congress wisely required in connection with federal assistance in the construction of hospitals under the original act. We should also continue to observe the principle of state and local determination of their needs without federal interference."

Mrs. Oveta Culp Hobby, Secretary of Health, Education and Welfare; Dr. John W. Cronin, Chief, Division of Hospital Facilities, Public Health Service; Marshall Shaffer, Chief, Technical Services Branch, Division of Hospital Facilities, Public Health Service

The fate of those proposals, at this writing, is not known. But the import is clear — the country has launched a major program of extending its hospital and health facilities through new construction, and that program is gaining, not losing, momentum. We want better health facilities; we are going to build them.

There are some other items worth looking at in the current situation. One that is obvious but important is that the Hill-Burton program, administered by the Public Health Service, has been an unusually happy experience as federal grants-in-aid programs go. It has not been a political football. It has not built an autocratic bureaucracy. It has relied on local initiative, has preserved local determination of need, local decision. For architects it is important that local designers have been used, and have been encouraged, while meeting some federal standards, to meet local desires. The program has, therefore, enlisted and combined local, state and federal participation, and local, state and federal funds.

An extremely important point, brought out by the president, is that it is one federal program that has not discouraged any private building enterprises. The president said: "This Federally stimulated accomplishment [106,000 hospital beds, 464 public health centers] has by no means retarded the building of hospitals without Federal aid. Construction costing in excess of $1,000,

Presumably, then, the program for the new types of facilities will be patterned after that of the old. It should be useful, therefore, to look closely into the operation of that program to see what has made it run so satisfactorily, and what might be expected in the future.

Here are some of the highlights:

1. A master plan, drawn even in advance of the Act, with priorities established. First priorities were given to health centers and hospitals for rural areas where the need was greatest.

2. Existence of state agencies to formulate and administer a state-wide program.

3. Preservation of local initiative by sponsor, architect, engineer, with federal and state functions limited. Each building program is initiated by some local group, which must build and operate its own hospital. The local sponsoring group applies for state and federal aid, hires its own architect, builder, and hospital staff.

Not the least important is the freedom given the local architect in the design and equipment of the building.

4. Prototype plans for guidance only. The Public Health Service staff of architects, under Marshall Shaffer, has carried on intensive studies of hospital planning, with the collaboration of medical, administrative and nursing groups. It has issued basic plan-

ning guides in the form of graphic type-plans for various departments of the hospital, type-plans for various sizes of buildings (published in previous Building Types Studies in ARCHITECTURAL RECORD). These were always understood, however, to be merely background information for the local architect, roughly the equivalent of research studies in planning, available to the architect but not mandatory in any sense.

5. Small, capable federal staff. The effort has always been to give guidance, never to do the actual work in any category of hospital activity. This principle of the program, growing out of the principle of local determination, has kept federal administrative costs to a very small figure — something like one-tenth of one per cent of the construction funds actually spent.

6. Cooperation of professional and industry groups at all stages of the program. Of current importance is the Federal Hospital Council, an advisory group of prominent laymen sitting on policy matters. This council has a Technical Committee on Architectural Standards, comprising four architects and two doctors. In formative years of the program other groups were very active, including the American Hospital Association, American Medical Association, American Institute of Architects, and others.

Those points, quickly stated, stand out as important, but they were not so quickly achieved. There is a thread of cooperation running through the entire operation which represents a massive accomplishment but which required long and careful nursing, as well as thoughtful planning. In any case, there now exists a great, nationwide network of dedicated individuals and groups, working formally and informally to extend and improve hospital building. It has frequently been observed, for example, that the mere existence of the state agencies may have done more good in the hospital field than the federal funds that originally caused their formation. The reason is, of course, that for the first time each state has an active group with a sure knowledge of state needs, a strong conviction and a program. Even without federal funds this sort of thing would be constructive.

In the same way, education in hospital matters has spread widely. This was a conscious part of the early plan, and Shaffer and others did much urging to initiate seminars on hospital planning, both in the A.I.A. and in the hospital organizations. To say that this effort has improved the design of hospitals would be putting it mildly — it has also clarified the need for hospital facilities and spread the determination to have them. Though less tangible than federal dollars, these factors may be more important in the end.

Architects and engineers will not miss another thread running through the entire scheme — every step was calculated to preserve existing professional and commercial relationships, to work within established practices and procedures. There is a carefully worked out procedure for submitting building proposals, plans, and contracts for the purpose of enlisting state and federal aid, but it is designed merely to expedite matters and save needless loss of time and money; it does not require a single step that would violate established practices. There is, for example, an understanding as to when the architect starts working drawings, and the effect of this has invariably been to save drawing time, by withholding this step until the building program has been thoroughly discussed and agreed upon, and the commitment made for funds. Single-line schematics are used up to this point, for all discussions of space allocations, circulation problems and so on. Thus when the working drawings are begun, the arguments have been settled and drawings do not involve false starts and major changes.

Similarly there is a model contract specification, a sort of reviewing guide, which was worked out with the help of the A.I.A. and the A.G.C., again largely to simplify procedures, not to dictate them, and, again too, to conform with established practices.

On the whole the Hill-Burton hospital program has been a satisfactory experience for everybody concerned. As a matter of fact, opinions on the workings of the program were exhaustively surveyed by the American Hospital Association, and summarized thus:

1. There has been general acceptance of Hill-Burton principles and program.
2. Hill-Burton is a well administered program.
3. It has resulted in better patient care through licensure of hospitals and improved standards of health care in hospitals and health centers.
4. Hill-Burton has provided a better distribution of hospitals and related health care.
5. Organized planning for hospital and health needs of all the people has been stimulated.
6. Better architecture is one of many excellent by-products.
7. Staffing and operational problems, even in small hospitals, have been partially met.
8. Hill-Burton has stimulated better hospital administration.
9. The program has preserved states' rights.
10. State Advisory Councils have contributed to broad thinking and sound planning.
11. It has been an asset to civil defense.
12. The program has advanced the cause of hospital safety.
13. Hill-Burton is an effective pattern of Federal, State, and local cooperation.
14. Present authorization of $150 million is adequate.
15. Present allotment formula is acceptable.

It is clear that, at a critical period, the Hill-Burton program has been re-examined and has passed its tests cum laude. It is clear also that this satisfactory experience promises well for continuation and extension of the whole program of health facilities.

Emerson Goble

LARGE HOSPITAL WITH A CHEERFUL LOOK

108-Bed Hospital Planned for Three More Stories, 117 More Beds

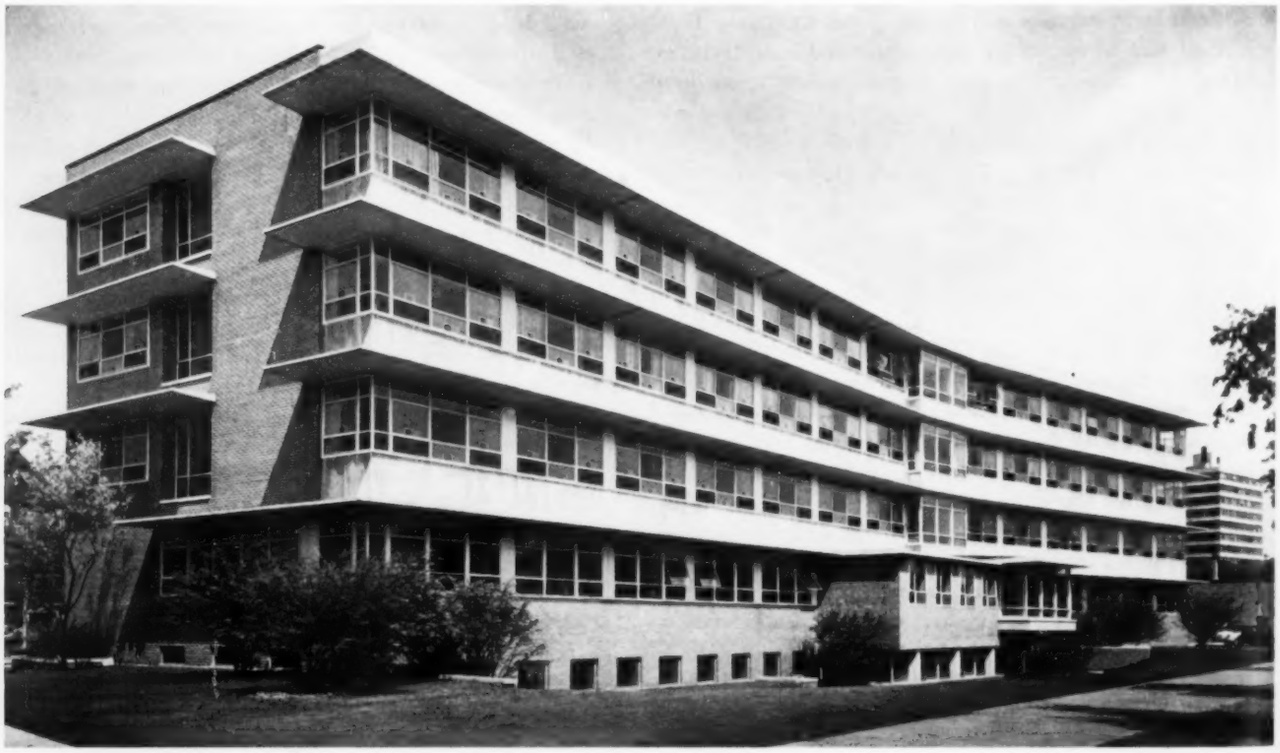
A HOSPITAL with a cheerful look is a rare accomplishment, in spite of frequent comments on its desirability. Here is one in which a non-institutional character was a prime objective of the architects. And while the black-and-white photographs indicate considerable success in this effort, they do not fully convey the results, for gay colors play a strong part in the interiors.

As for the exterior, while the experienced eye may note the obvious form of a large hospital, it would also observe some niceties of treatment which tend to relieve the usual harshness of a hospital. The long horizontals of the sunshades are broken by several projections, and the fenestration suggests the scale of interior spaces. One notes also the bend in the straight lines; this breaks the corridors, to cut in half the long corridor views inside the building. The landscaping also breaks the continuity of the walls, and carries a promise of something other than bleak formality inside the building.

"We have aimed," say the architects, "to lessen patient apprehension of medication and surgery and to hasten recuperation by the elimination of sterile, medical, impersonal atomospheres." Ceilings in corridors and patient rooms are only 8 ft, considerably lower than most hospital standards; they not only cut the cubage of the building, but contribute to a residential scale.

Louis A. Weiss Memorial Hospital, Chicago

Loebl, Schlossman & Bennett,
Architects-Engineers



Chicago Architectural Photographing Co.

Chicago Architectural Photographing Co.

Chicago Architectural Photographing Co

Hedrich-Blessing

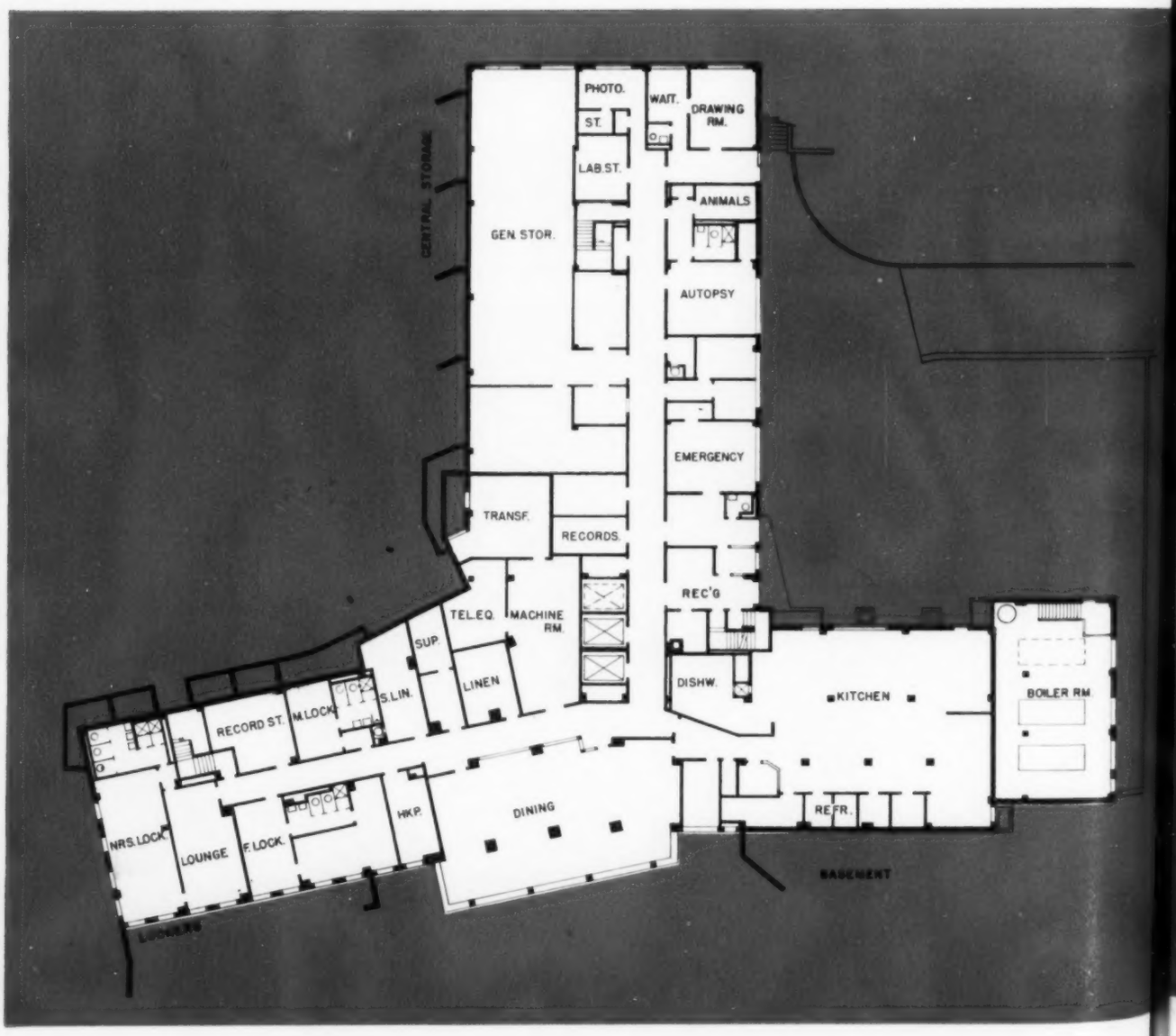
Large glass areas at corridor ends admit sunlight and cheer. Colors, materials and furnishings were selected and correlated for warmth, variety and friendliness (interior furnishings by Knoll Associates). Most patient rooms enjoy the view of Lake Michigan. The combination of wall-to-wall windows and projecting canopies give the advantages of view and light without undue brightness or glare. Gay draperies are used for light control.

The building can accommodate 108 patients in its present size, though its "chassis" is adequate for an eventual bed capacity of 225. It has no obstetrical or pediatric departments at present; these may be added when the building is extended by the addition of three more floors. It occupies a full block on Marine Drive on Chicago's north side, with an additional half block now used for parking, though this extra plot may later be developed with a doctors' office building. Including all fixed equipment, the building cost approximately $3,000,000, exclusive of land, landscaping and professional fees.

Interiors generally were planned to obviate the usual institutional character of a hospital. Nurses' station (below) is opposite elevators at center of the bent top of the T, commanding views of corridors in both directions. View at bottom of page shows combination doctors' lounge library and conference room, on first floor

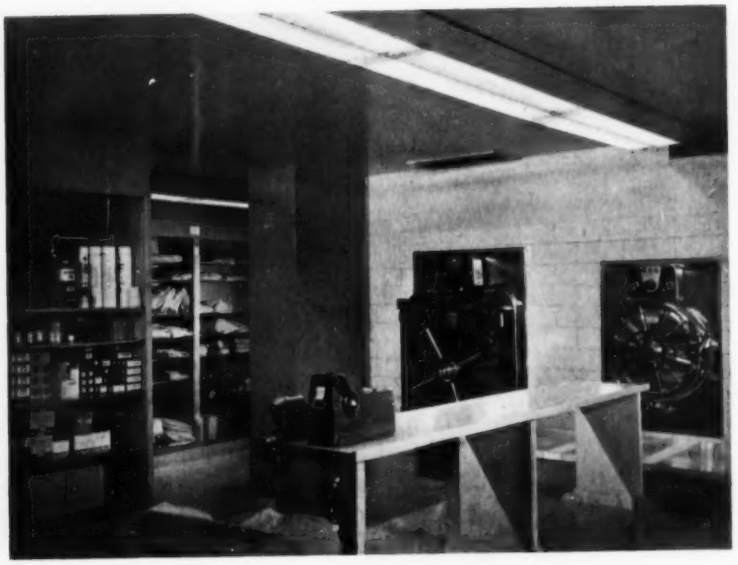
Hedrich-Blessing

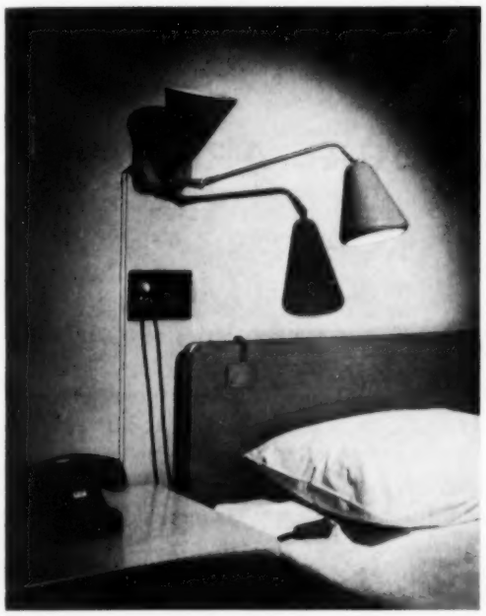
Hedrich-Blessing



Patient food service is by individual tray from main kitchen; trays come off conveyor belt, 10 at a time, go via trucks directly to elevator; total time to patient, 5 minutes. Hospital has large outpatient department, with a dozen examining rooms (below) and separate outpatients' lobby (right) next to laboratory, X-ray, therapy departments

Hedrich-Blessing





Virtually all patient rooms have two beds, mainly for economy reasons. But all beds parallel windows, so that both patients have equal advantages of light, view, air. Curtain tracks in curvilinear forms permit curtains to be arranged so that nurses or visitors have access to either bed without traversing other patient's area. This arrangement means more wall space than conventional rooms, also some duplication of call systems and oxygen outlets, but was considered here to be worth the difference, especially since there really are no single rooms in the whole hospital

PUBLIC HEALTH CENTER FOR A RURAL AREA

Athens-Clarke County Health Center, Athens, Ga.

Gabriel Benzur

***Heery and Heery**, Architects*

***H. K. Nicholson**, Engineer associated*

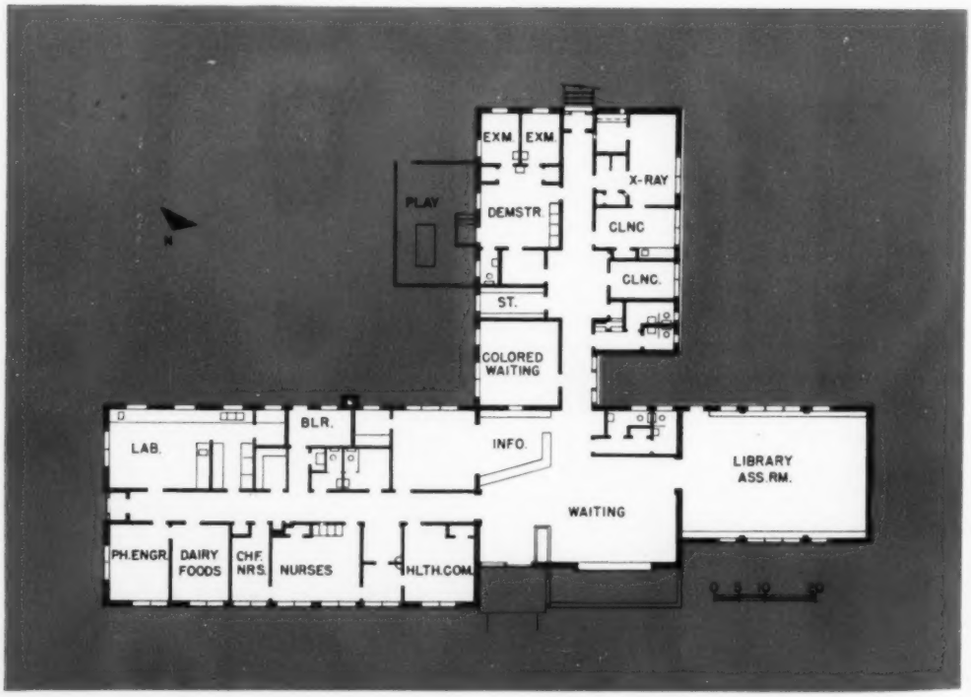
***J. W. Austin Jr.**, Mechanical Engineer*

***William Leroy Edwards**, Electrical Engineer*

THE SOUTH has seen a great many health centers spring up under the federal program of extending health facilities to areas where the need has been great. This was one of the earlier ones to be completed, and is fairly representative of the accommodations provided for the nursing staff and laboratory technicians and doctors who not only guard the community against contamination and epidemic diseases, but also train citizens, especially mothers, in matters of health.

The plan divided logically into two main wings, one for clinical services, one for public health workers. The assembly room is placed so that it can be used for lectures and demonstrations without disturbing the operations in other parts of the building.

The building is of ordinary construction, with masonry bearing walls, concrete floor on ground, wood partitions and roof construction. Heating is gas fired, radiant hot water, with wrought iron coils in the floor.



NURSES' HOME ATTRACTS VITAL PERSONNEL

Nurses' Home, Massachusetts General Hospital, Boston

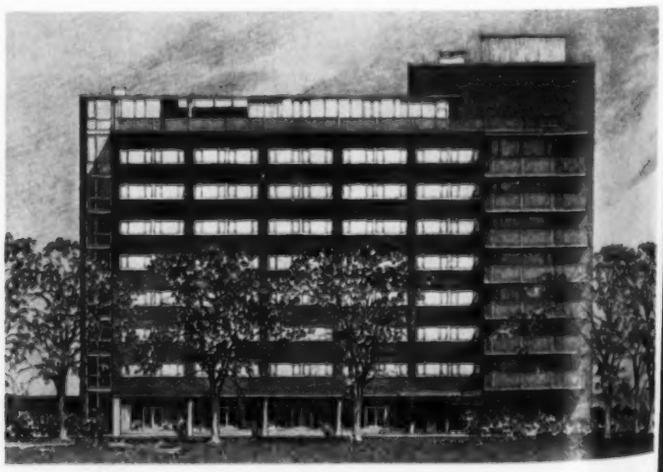
Shepley, Bulfinch, Richardson & Abbott, Architects

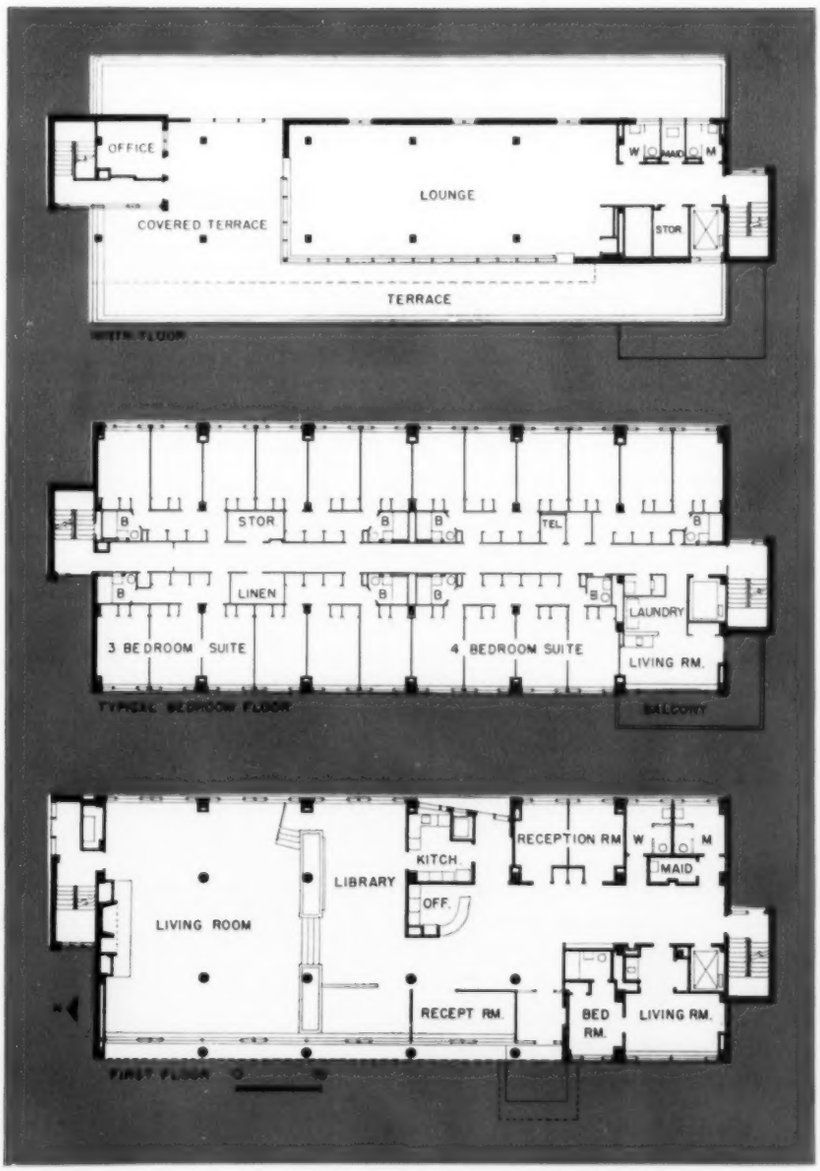
Robert D. Harvey Studio

NURSES' HOMES are a recognized part of the Hill-Burton program, as frequently the nursing situation determines the whole hospital operation. This is an exceptionally nice one, with pleasant but economical accommodations.

The problem was to house as many nurses as possible within the allotted budget. The rooms were organized in suites of three for student nurses and in suites of two bedrooms and one sitting room for graduates, the arrangements being interchangeable. All suites were equipped with private bath accessible. Basement contains a trunk room along with various services. Mr. Shepley comments that the three-room suites have worked out very well indeed and are very popular with the nurses. They like especially the extra closets in the sub-corridors. The small living room on each floor has also proved successful; in the early stages of planning there was a living room on each floor which took the equal of two bedrooms, also a tea kitchen and a small laundry. For the sake of economy these were combined together and a balcony was added.

The cost, exclusive of landscaping and fees, was $786,542. This comes to $1.86 per cu ft, or $5975 per nurse accommodated.




OFFICE
COVERED TERRACE
LOUNGE
W
MAID
M
STOR
TERRACE
STOR
B
TEL
LINEN
LAUNDRY
3 BEDROOM SUITE
4 BEDROOM SUITE
LIVING RM.
TYPICAL BEDROOM FLOOR
BALCONY
LIBRARY
KITCH.
OFF.
RECEPTION RM
MAID
LIVING ROOM
RECEPT RM.
BED RM.
LIVING RM.
FIRST FLOOR

LABORATORY FOR STATE HEALTH DEPARTMENT

Hygienic Laboratory Building for West Virginia Department of Health, Charleston, W. Va.

HEALTH LABORATORIES are an important part of the health program under Hill-Burton, but actually not many projects in this category have been completed. Perhaps a brief record of this project will serve to illustrate both the need and the difficulties involved.

The hygienic laboratory of the State of West Virginia has been plagued for years by inadequate housing, renting quarters in five different buildings. Many attempts were made to get the several departments together — the state water commission, health department and its industrial hygiene bureau, and the sanitary engineering division. In the end the funds were forthcoming only for the state health department, involving some $500,000 of state and federal funds. This building, then, houses only the hygienic laboratory division of the health department.

The problem then was to plan a building of functional design, with the highly specialized and varied facilities necessary for exacting bacteriological, immunological and chemical routine and research work, with adequate protection against laboratory-acquired infections among workers. Along with the usual requirements of a building, were: sanitary finishes of interior surfaces, for ready washability, maximum dust prevention, safety venting from infected areas, means for area asepsis, exceptionally good lighting.

The architects and the laboratory personnel worked together on layout sketches, and the final plans incorporate the basic principles of the model plans for state health laboratories of the Committee on Laboratory Quarters of the Conference of State and Provincial Public Health Laboratory Directors. A one-story scheme was adopted as most suitable for flow of work. Maximum flexibility was achieved by the use of movable steel partitions wherever possible, and the building was planned for later extensions if needed.

The building has brick load-bearing walls, with 2-in. concrete slab roof construction on bar joists. Interior of outside wall is finished with clear-glazed facing tile; this finish is also used for solid partition walls in areas for refrigeration, sterilization, shipping, also locker and toilet rooms. Floors are largely asphalt tile, though ceramic tile is used in service areas. Ceilings are of acoustic tile.

The building was planned for central air conditioning, using corridor as return plenum. Certain of the laboratory rooms were planned for 100 per cent make-up air, to prevent virus infections from reaching other rooms. As yet, however, the budget has not extended to the air conditioning equipment.

C. E. Silling & Associates, Architects

John Paul Jones, Cary and Millar, Mechanical and Electrical Engineers

R. W. Haworth, Structural Engineer

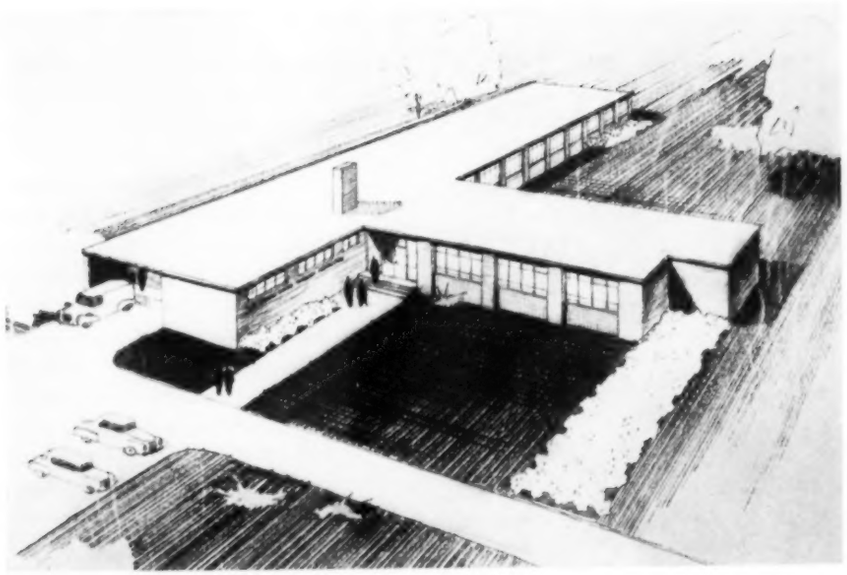
COST DATA

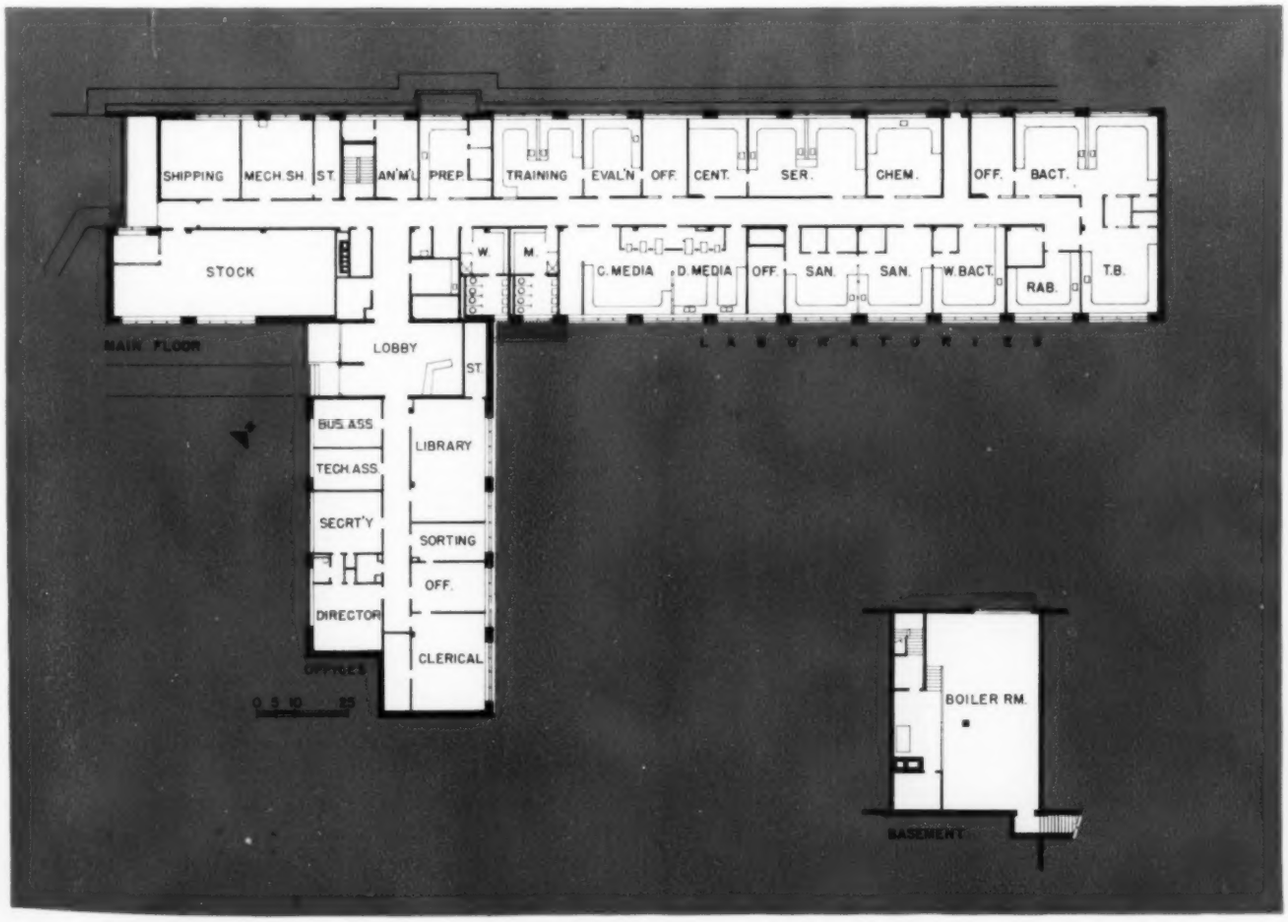
Date of Contract—Feb. 18, 1953

Total Construction costs		$462,000
Total Laboratory Furnishings		52,560
Total Cubage	406,760 cu ft	
Total square feet	23,298 sq ft	
Construction cost per cu ft		$1.1358
Furnishing cost per cu ft		.129
	Total	$1.2648

General Construction	Total Cost	Cu ft Cost
General Construction	$327,541	$.8052
Heating, Plumbing, Ventilating	95,868	.2356
Electrical	38,591	.0948
Totals	$462,000	$1.1356

Architects' fees and loose equipment costs not included in above. Also an item of $35,000 for air conditioning equipment not yet installed will eventually be added to above costs.



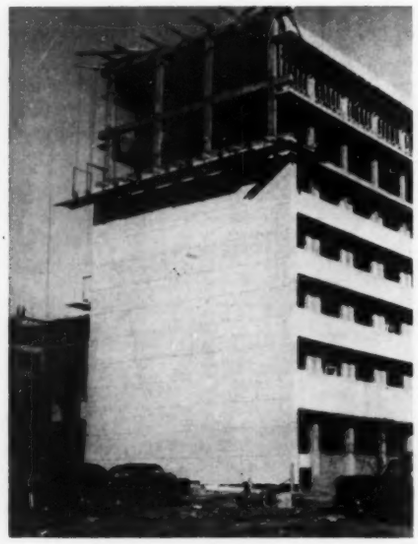

SHIPPING
MECH. SH.
ST.
AN'M'L
PREP.
TRAINING
EVAL'N
OFF.
CENT.
SER.
CHEM.
OFF.
BACT.
STOCK
W.
M.
C. MEDIA
D. MEDIA
OFF.
SAN.
SAN.
W. BACT.
RAB.
T.B.
MAIN FLOOR
LABORATORIES
LOBBY
ST.
BUS. ASS.
TECH. ASS.
SECRT'Y
DIRECTOR
OFFICES
LIBRARY
SORTING
OFF.
CLERICAL
0 5 10 25
BOILER RM.
BASEMENT

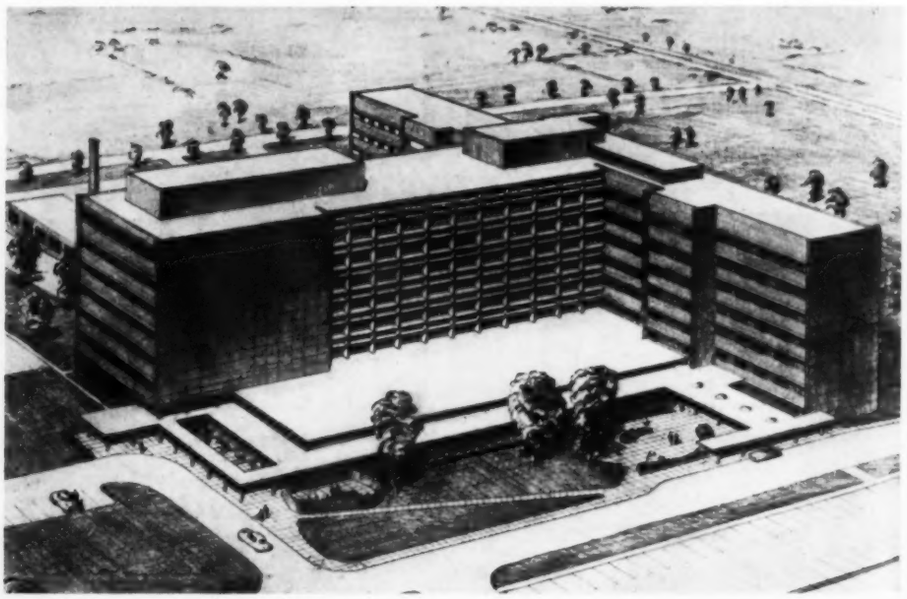
MEDICAL SCHOOL AND TEACHING HOSPITAL

University Medical School and Teaching Hospital, Jackson, Miss.

MNO Associated Architects

E. L. Mulvaney
R. W. Naef
N. W. Overstreet





WHILE THE HILL-BURTON PROGRAM gives major attention to small hospitals for rural areas, it also contemplates that teaching and training are vital to the extension of the country's health facilities. Thus the Coordinated Hospital System points toward the teaching hospital as the top level of medical science. Here, then, is one of the few large new institutions, to fill a great need in the developing South.

As a planning assignment it was a major study in schematics, with three architectural firms uniting to handle one of the most complicated tasks of recent years. Developing the program took about six months, the schematics another four months. From these preliminaries a model was built, for study of the building that would result. At this point an interesting story begins. The architects, solemnly viewing the model, agreed that they were unhappy. They concluded further that everybody was too close to the functions of the project to make an unbiased study of the mass. They then called in an outside architect, W. R. Allen, Jr., to contribute a fresh viewpoint. He went to Jackson to study the organization of the building with a view to simplification, and offered a new scheme in sketch renderings. The principals decided that much of his detail would strain the cost budget — which also had been watched closely — but that his overall scheme was acceptable. It involved considerable reshuffling in plan, but it did improve the mass. They concluded then that the whole experience had been quite salutary, for it had helped them out of a planning rut. From then on the thinking was clarified and the present schematics quickly followed.

***A. C. Bachmeyer, M.D.,** Medical Consultant*

***Gardner & Howe** associated with*
***Post & Witty,** Structural Engineers*

***Landauer & Shaffer,** Mechanical and Electrical Engineers*

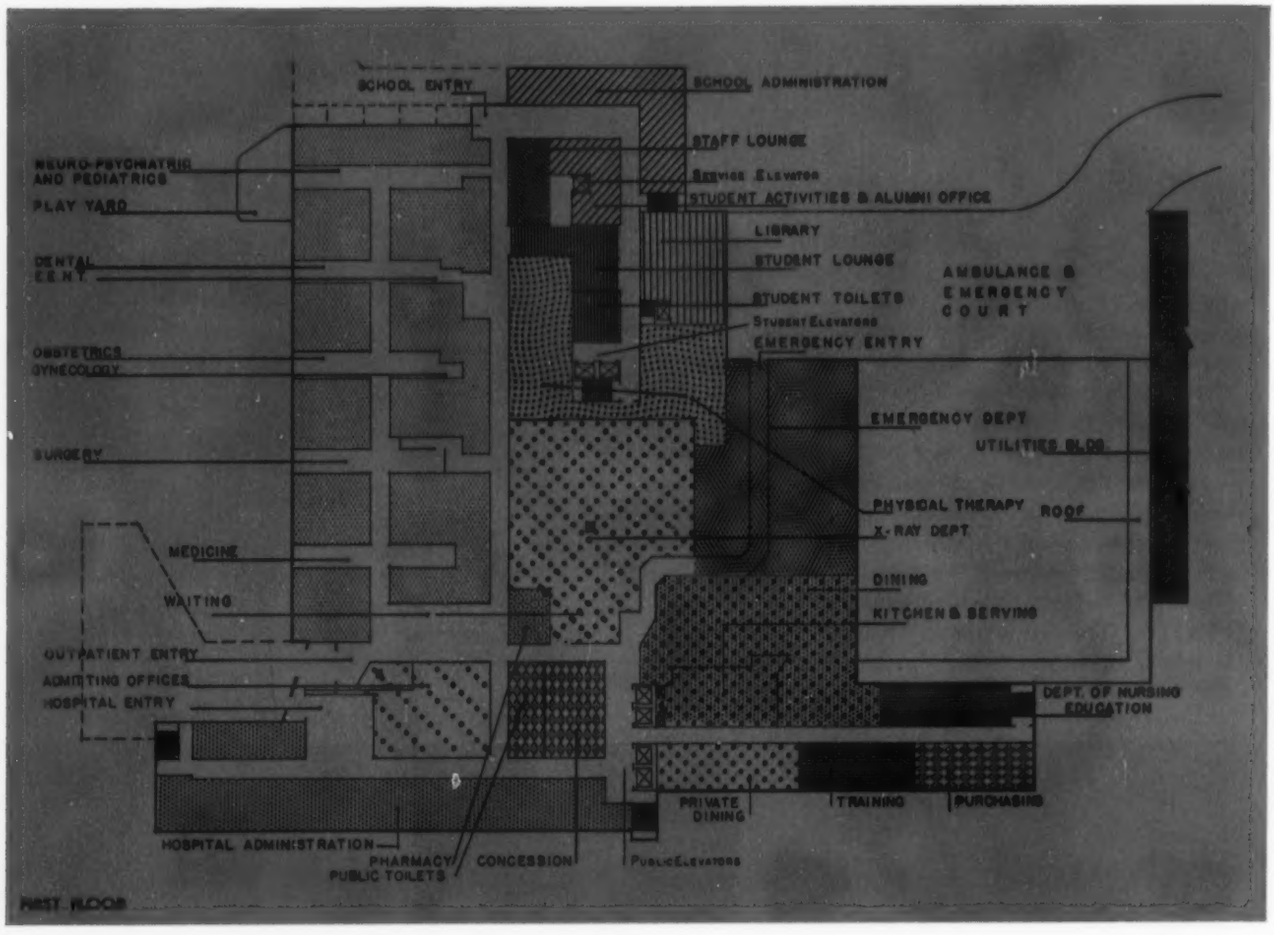
***Olmstead Brothers,** Site Planners*

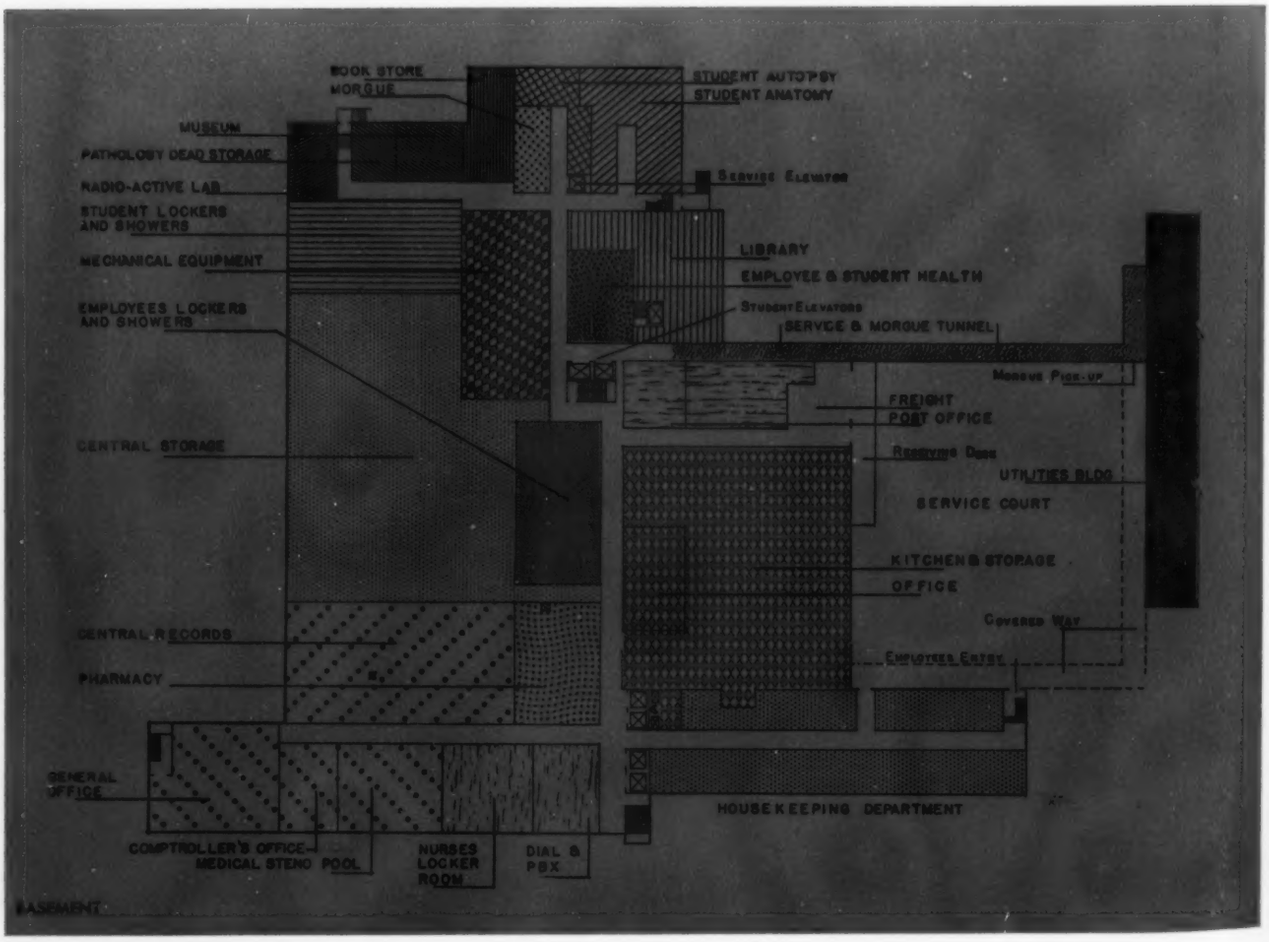
The schematics, presented on following pages, have been analyzed exhaustively, and will bear as close scrutiny as one may care to give them. To relate all of the program and the reasoning in it would require a prodigious presentation; a few highlights will have to suffice.

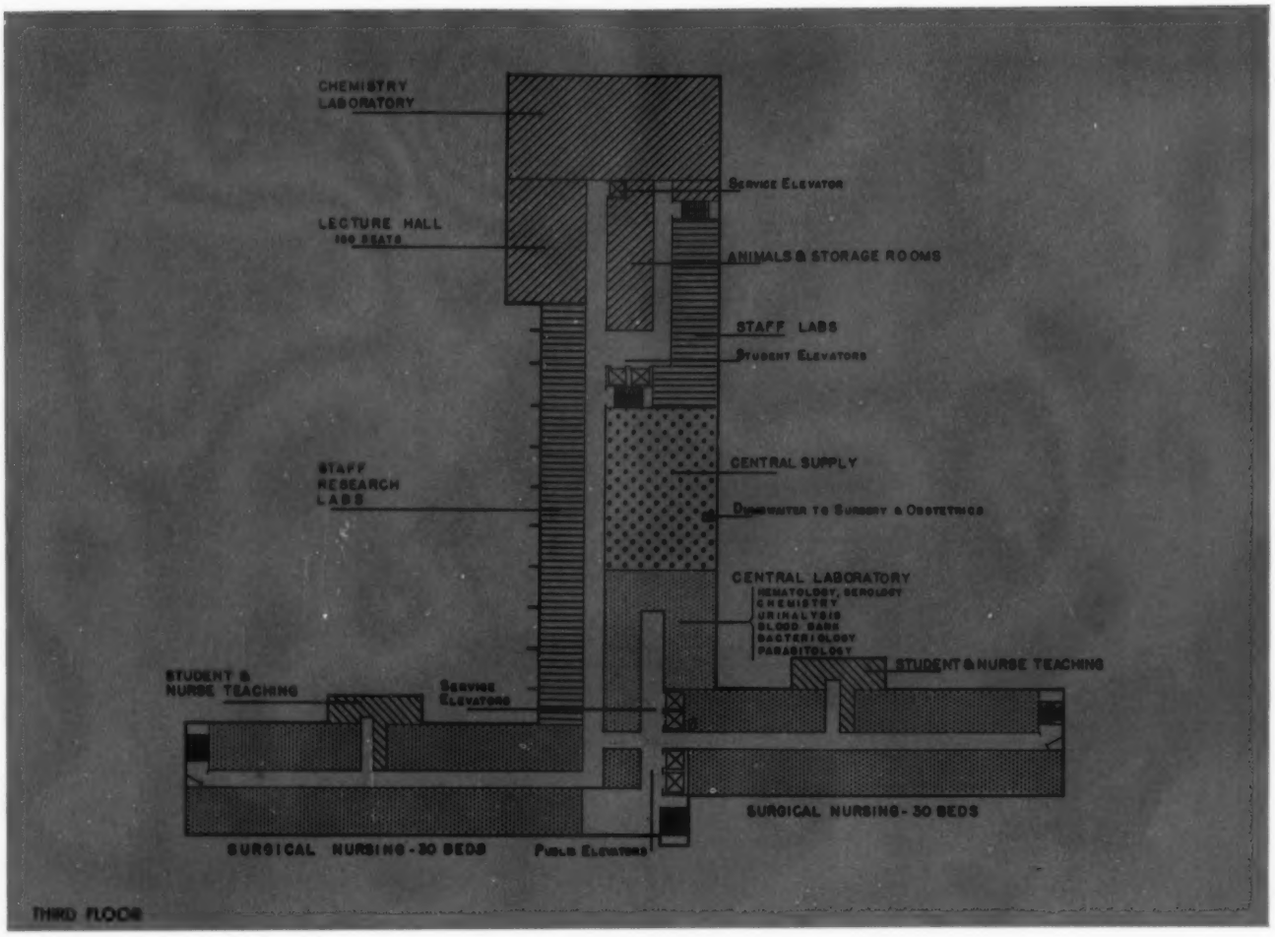
The diagrams clearly show the dual purpose of school and hospital, the bottom of the T form providing, on each floor, an isolated location for laboratories and lecture rooms. The T shape proves useful, too, for keeping two nursing units per floor separated from each other and from medical and surgical departments. The double corridor device is cleverly used to maintain separations of functions and keep the travel distances within bounds.

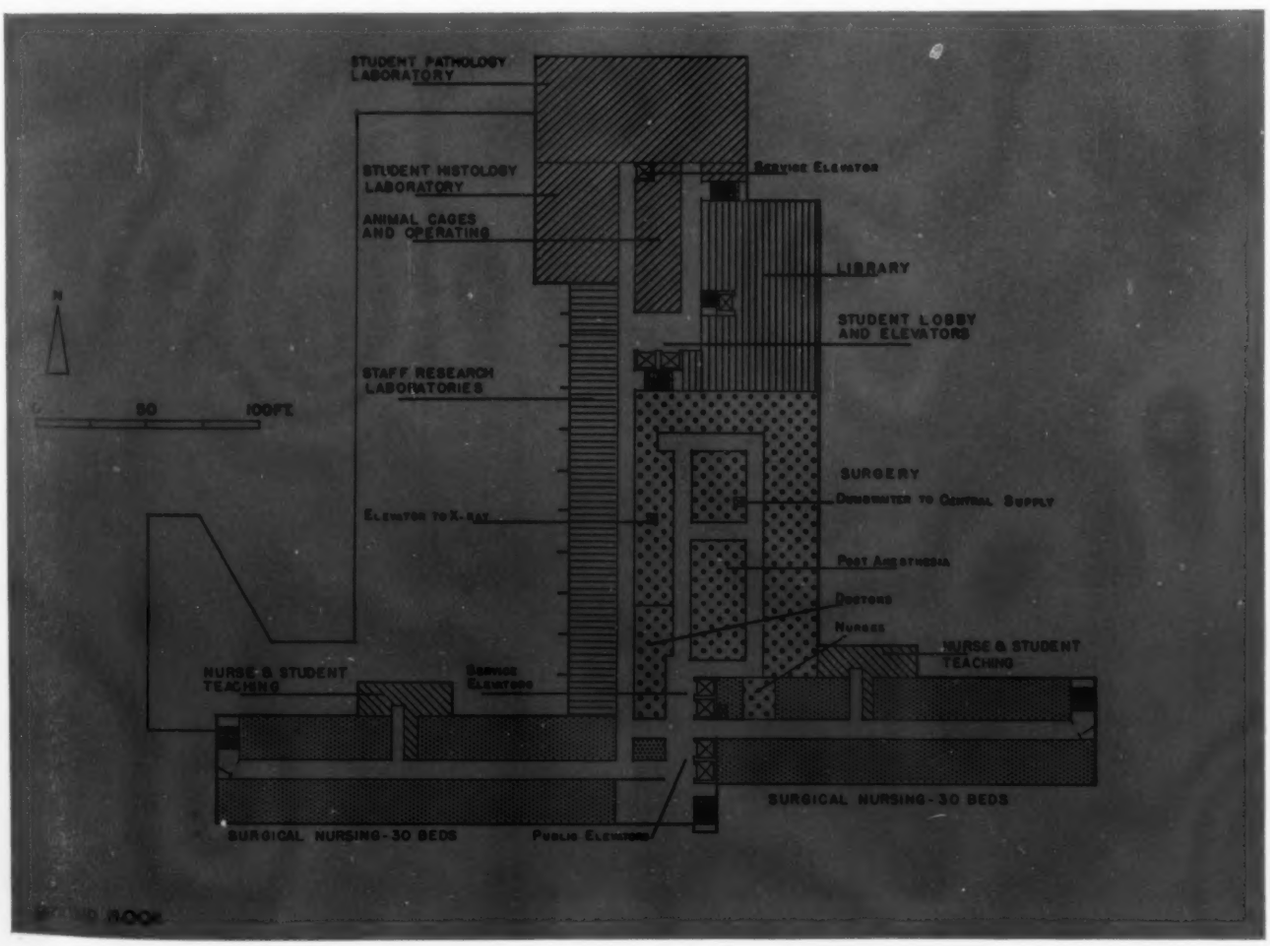
The first floor development, with huge outpatient department, called for shoehorn operations on a vast scale. Note especially the scheme for clinical departments, with cross corridors; this space will have clerestory windows.

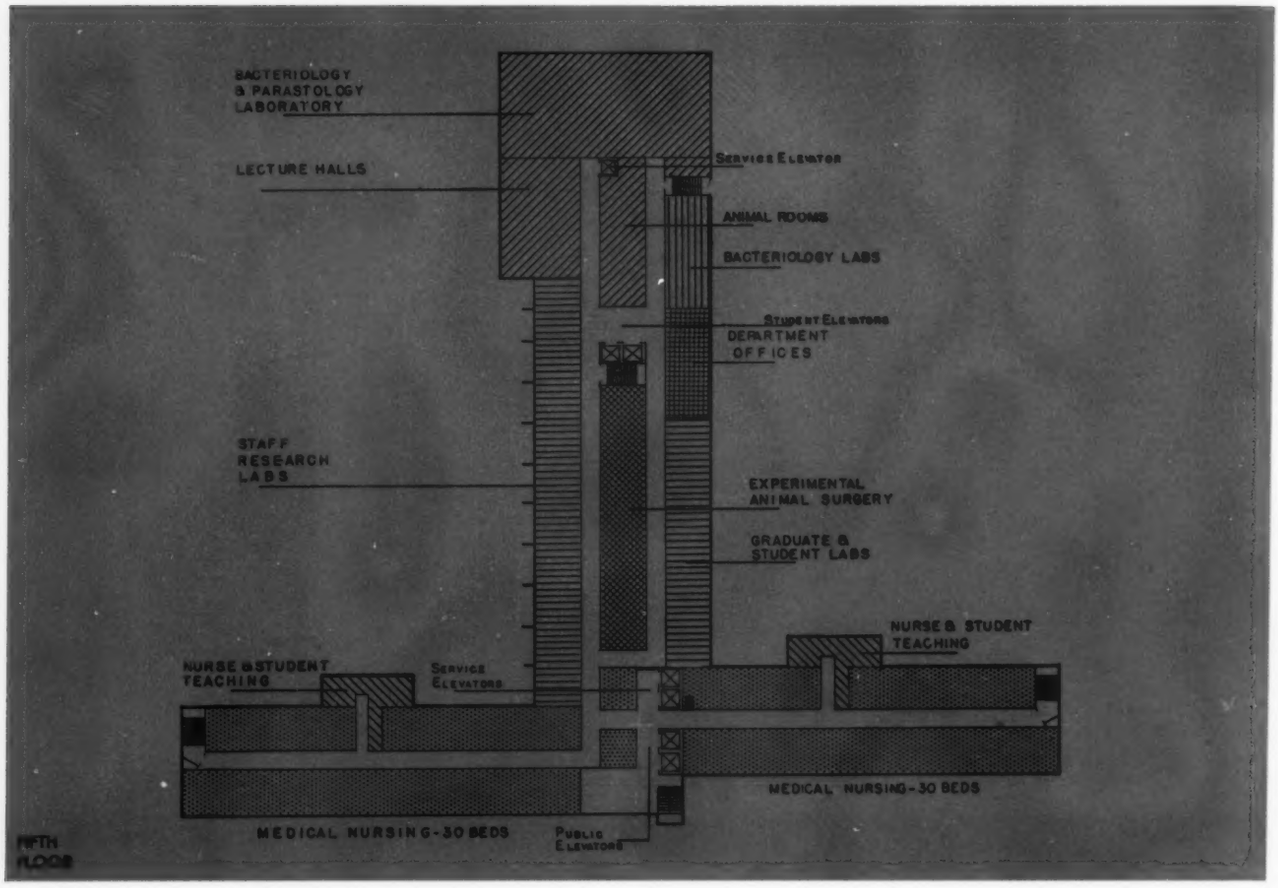
The building is scheduled for completion early in 1955, and will cost approximately $9,000,000.

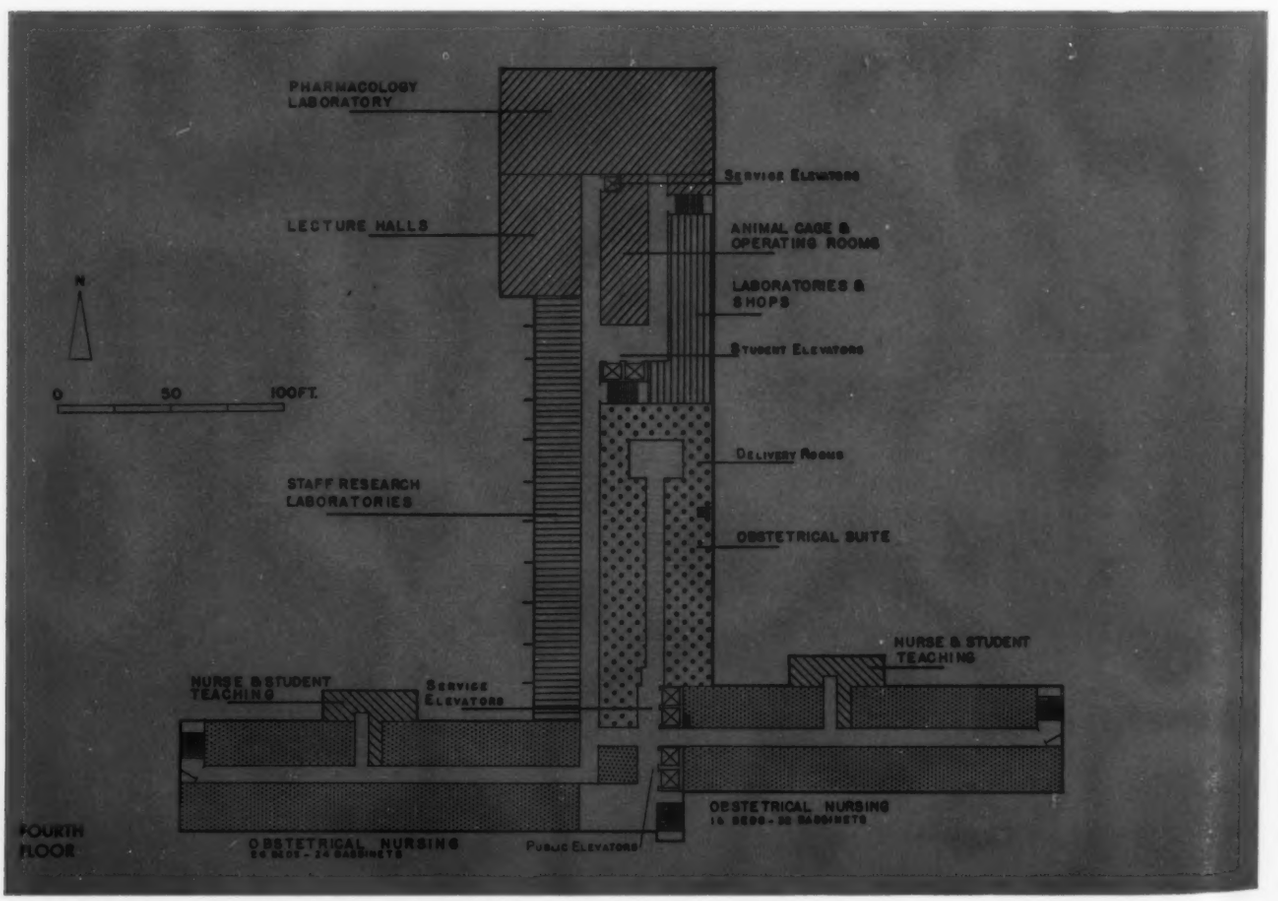

SCHOOL ENTRY
SCHOOL ADMINISTRATION
STAFF LOUNGE
SERVICE ELEVATOR
STUDENT ACTIVITIES & ALUMNI OFFICE
LIBRARY
STUDENT LOUNGE
STUDENT TOILETS
STUDENT ELEVATORS
EMERGENCY ENTRY
AMBULANCE & EMERGENCY COURT
NEURO-PSYCHIATRIC AND PEDIATRICS
PLAY YARD
DENTAL
EENT
OBSTETRICS
GYNECOLOGY
SURGERY
EMERGENCY DEPT
UTILITIES BLDG
PHYSICAL THERAPY
ROOF
X-RAY DEPT
MEDICINE
WAITING
DINING
KITCHEN & SERVING
OUTPATIENT ENTRY
ADMITTING OFFICES
HOSPITAL ENTRY
DEPT. OF NURSING EDUCATION
PRIVATE DINING
TRAINING
PURCHASING
HOSPITAL ADMINISTRATION
PHARMACY
PUBLIC TOILETS
CONCESSION
PUBLIC ELEVATORS
FIRST FLOOR

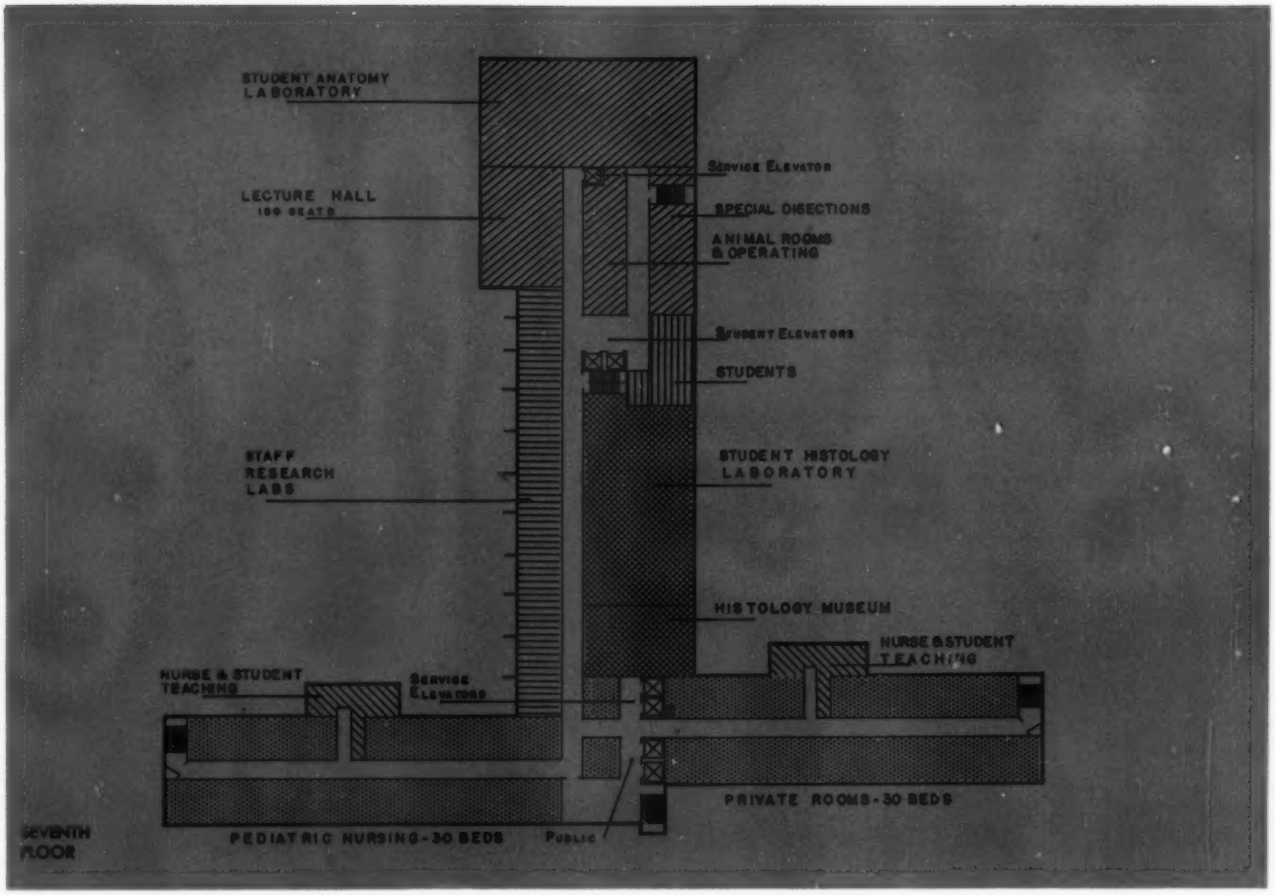

BOOK STORE
MORGUE
STUDENT AUTOPSY
STUDENT ANATOMY
MUSEUM
PATHOLOGY DEAD STORAGE
RADIO-ACTIVE LAB
STUDENT LOCKERS AND SHOWERS
MECHANICAL EQUIPMENT
EMPLOYEES LOCKERS AND SHOWERS
SERVICE ELEVATOR
LIBRARY
EMPLOYEE & STUDENT HEALTH
STUDENT ELEVATORS
SERVICE & MORGUE TUNNEL
MORGUE PICK-UP
FREIGHT
POST OFFICE
CENTRAL STORAGE
RECEIVING DOCK
UTILITIES BLDG
SERVICE COURT
KITCHEN & STORAGE
OFFICE
COVERED WAY
CENTRAL RECORDS
EMPLOYEES ENTRY
PHARMACY
GENERAL OFFICE
HOUSEKEEPING DEPARTMENT
COMPTROLLER'S OFFICE
MEDICAL STENO POOL
NURSES LOCKER ROOM
DIAL & PBX
BASEMENT

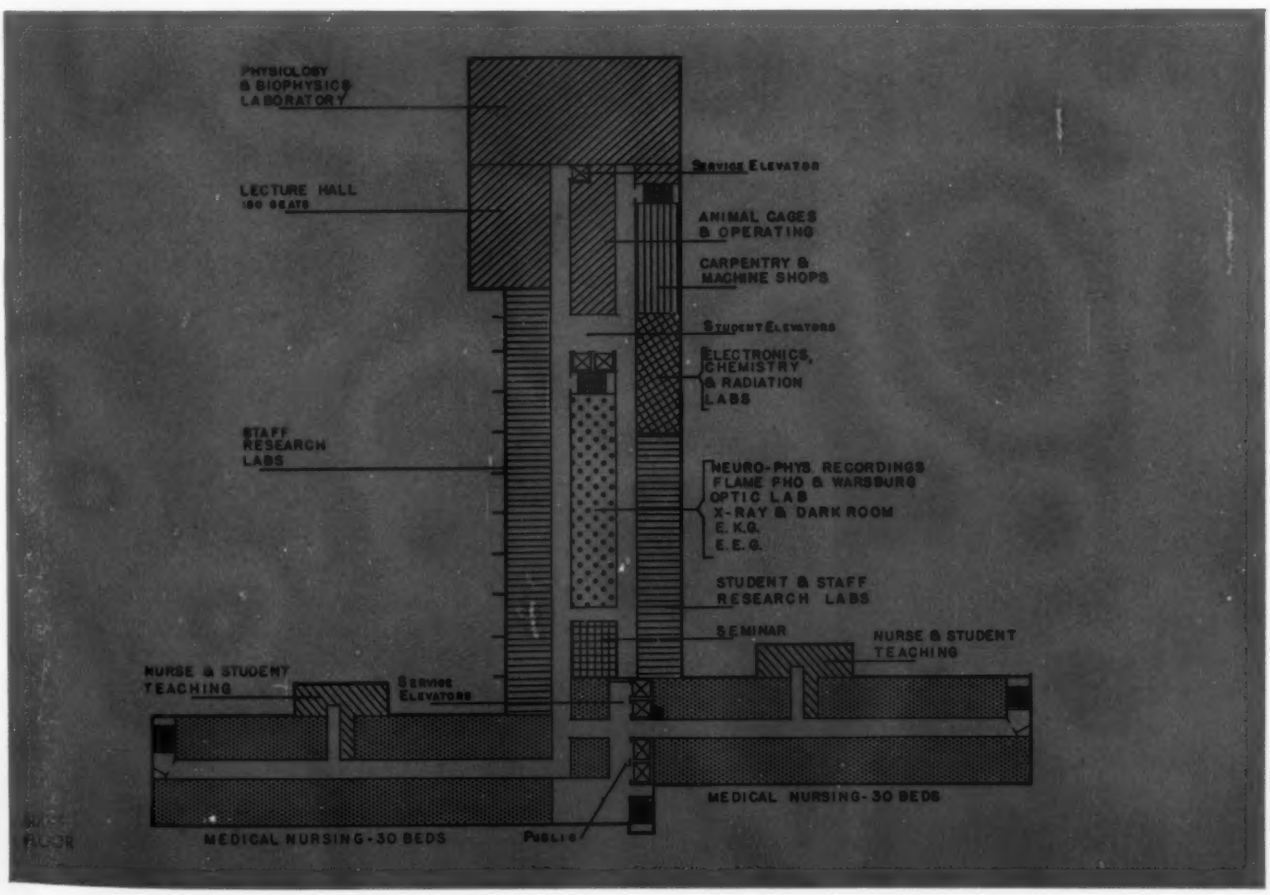

CHEMISTRY LABORATORY
LECTURE HALL
SERVICE ELEVATOR
ANIMALS & STORAGE ROOMS
STAFF LABS
STUDENT ELEVATORS
CENTRAL SUPPLY
STAFF RESEARCH LABS
DUMBWAITER TO SURGERY & OBSTETRICS
CENTRAL LABORATORY
HEMATOLOGY, SEROLOGY
CHEMISTRY
URINALYSIS
BLOOD BANK
BACTERIOLOGY
PARASITOLOGY
STUDENT & NURSE TEACHING
STUDENT & NURSE TEACHING
SERVICE ELEVATORS
SURGICAL NURSING - 30 BEDS
SURGICAL NURSING - 30 BEDS
PUBLIC ELEVATORS
THIRD FLOOR


STUDENT PATHOLOGY LABORATORY
STUDENT HISTOLOGY LABORATORY
SERVICE ELEVATOR
ANIMAL CAGES AND OPERATING
LIBRARY
STUDENT LOBBY AND ELEVATORS
N
STAFF RESEARCH LABORATORIES
50
100FT
SURGERY
DUMBWAITER TO CENTRAL SUPPLY
ELEVATOR TO X-RAY
POST ANESTHESIA
DOCTORS
NURSES
NURSE & STUDENT TEACHING
NURSE & STUDENT TEACHING
SERVICE ELEVATORS
SURGICAL NURSING - 30 BEDS
SURGICAL NURSING - 30 BEDS
PUBLIC ELEVATORS

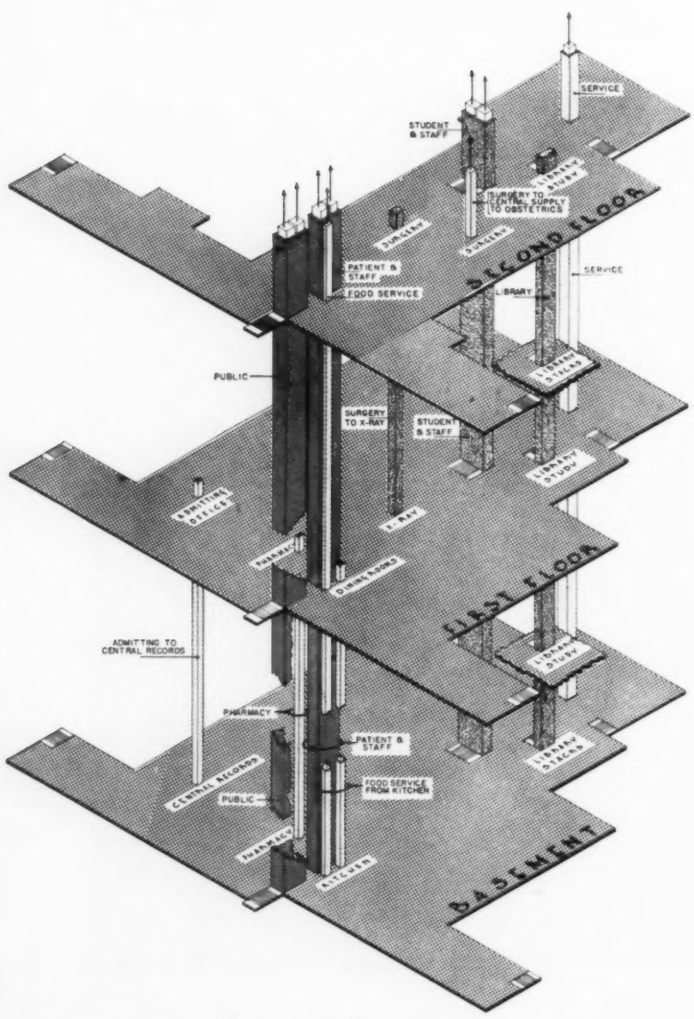

BACTERIOLOGY & PARASTOLOGY LABORATORY
LECTURE HALLS
SERVICE ELEVATOR
ANIMAL ROOMS
BACTERIOLOGY LABS
STUDENT ELEVATORS
DEPARTMENT OFFICES
STAFF RESEARCH LABS
EXPERIMENTAL ANIMAL SURGERY
GRADUATE & STUDENT LABS
NURSE & STUDENT TEACHING
NURSE & STUDENT TEACHING
SERVICE ELEVATORS
MEDICAL NURSING - 30 BEDS
MEDICAL NURSING - 30 BEDS
PUBLIC ELEVATORS
FIFTH FLOOR

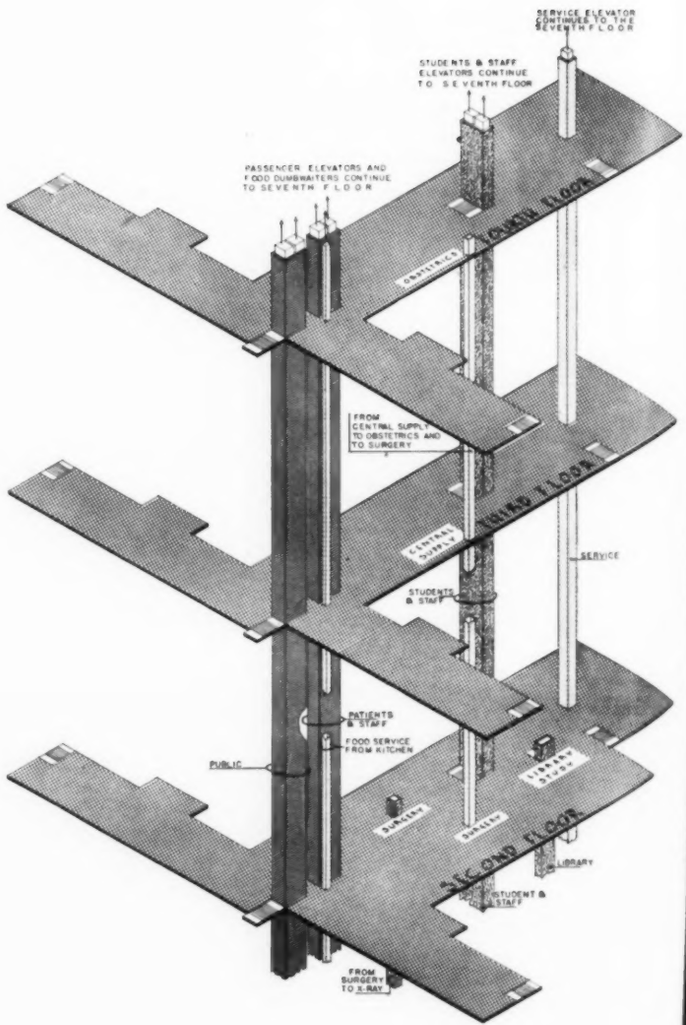

PHARMACOLOGY LABORATORY
SERVICE ELEVATORS
LECTURE HALLS
ANIMAL CAGE & OPERATING ROOMS
LABORATORIES & SHOPS
STUDENT ELEVATORS
N
0 50 100FT.
DELIVERY ROOMS
STAFF RESEARCH LABORATORIES
OBSTETRICAL SUITE
NURSE & STUDENT TEACHING
NURSE & STUDENT TEACHING
SERVICE ELEVATORS
OBSTETRICAL NURSING
OBSTETRICAL NURSING
PUBLIC ELEVATORS
FOURTH FLOOR


STUDENT ANATOMY LABORATORY
LECTURE HALL 180 SEATS
SERVICE ELEVATOR
SPECIAL DISECTIONS
ANIMAL ROOMS & OPERATING
STUDENT ELEVATORS
STUDENTS
STAFF RESEARCH LABS
STUDENT HISTOLOGY LABORATORY
HISTOLOGY MUSEUM
NURSE & STUDENT TEACHING
NURSE & STUDENT TEACHING
SERVICE ELEVATORS
PRIVATE ROOMS - 30 BEDS
SEVENTH FLOOR
PEDIATRIC NURSING - 30 BEDS
PUBLIC

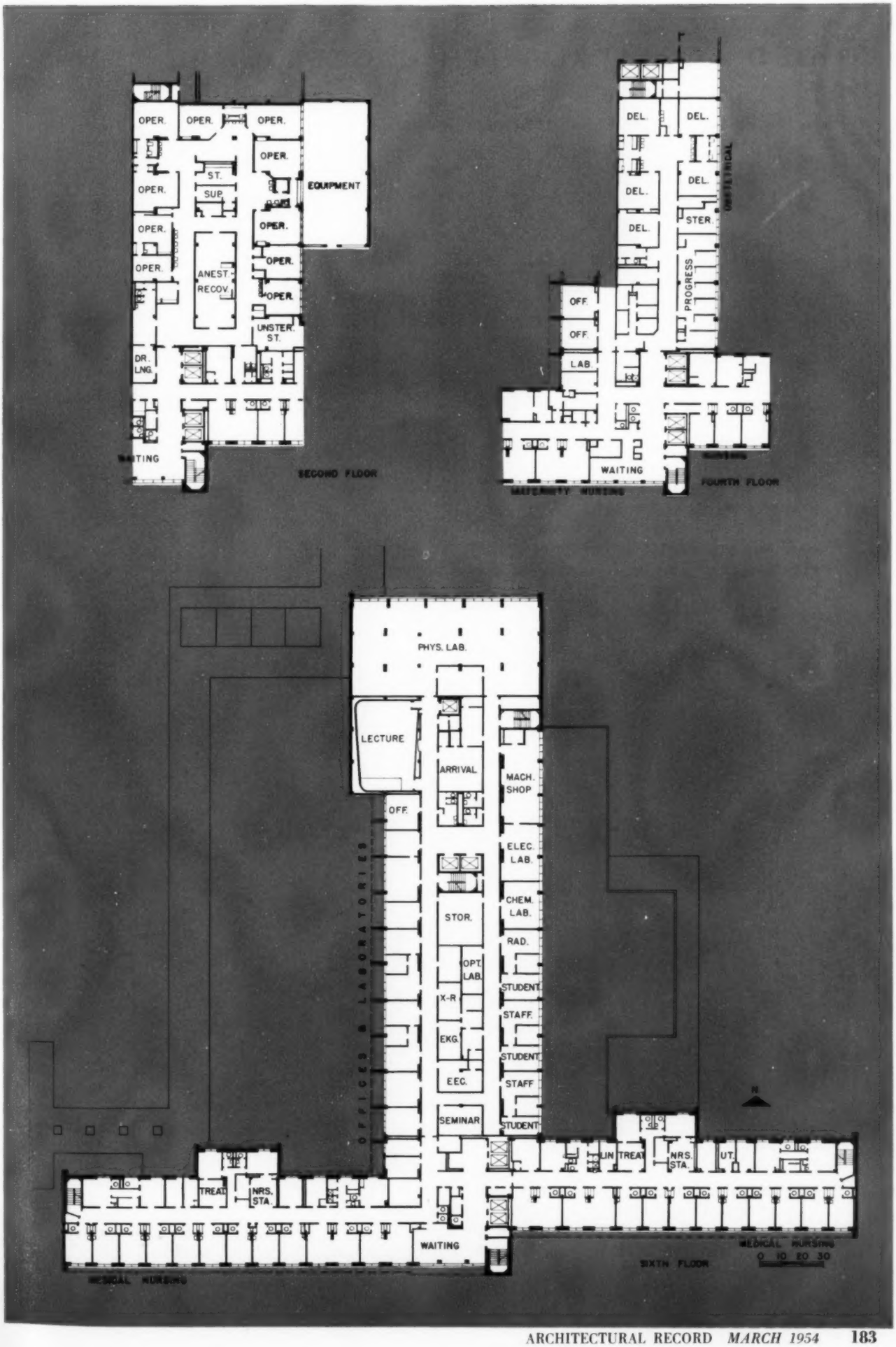

PHYSIOLOGY & BIOPHYSICS LABORATORY
LECTURE HALL 180 SEATS
SERVICE ELEVATOR
ANIMAL CAGES & OPERATING
CARPENTRY & MACHINE SHOPS
STUDENT ELEVATORS
ELECTRONICS, CHEMISTRY & RADIATION LABS
STAFF RESEARCH LABS
NEURO-PHYS. RECORDINGS
FLAME PHO & WARSBURG
OPTIC LAB
X-RAY & DARK ROOM
E.K.G.
E.E.G.
STUDENT & STAFF RESEARCH LABS
SEMINAR
NURSE & STUDENT TEACHING
NURSE & STUDENT TEACHING
SERVICE ELEVATORS
MEDICAL NURSING - 30 BEDS
MEDICAL NURSING - 30 BEDS
PUBLIC

The diagrams of vertical supply and transportation systems, shown below, could become a good argument for the vertical type of hospital building, particularly when the plan is confused by the addition of a medical school. In this regard, notice especially the separate elevator connecting a stacked-up system of libraries. This puts individual study libraries close to their respective fields of subject matter, but connects them for easy cross reference. Students and staff have elevators of their own, to keep school traffic out of hospital circulation as much as possible. Individual dumbwaiters connect central sterilizing to obstetrics and to surgery, also surgery to x-ray. There are also dumbwaiters from the central records room to the admitting office, and between pharmacies on various levels. In the main, however, the heavy traffic concentrates in the elevators and food service dumbwaiters at the juncture of the T. Two banks of elevators keep staff and service separate from the public.





The double corridor is used on all floors. The sixth floor plan, opposite page, is typical in this respect, with double corridor serving two outer rows of offices and laboratories, with storage rooms and dark laboratory spaces between the two corridors. On the second floor, at surgery, the double corridor becomes triple, a sort of double corridor to the second power. Here, and in the fourth floor obstetrical suite, the double corridor becomes a device for providing a cul de sac location.


OPER.
OPER.
OPER.
OPER.
OPER.
OPER.
OPER.
OPER.
OPER.
OPER.
ST.
SUP.
EQUIPMENT
ANEST.
RECOV.
UNSTER. ST.
DR. LNG.
WAITING
SECOND FLOOR
DEL.
DEL.
DEL.
DEL.
DEL.
STER.
PROGRESS
OFF.
OFF.
LAB.
WAITING
MATERNITY NURSING
FOURTH FLOOR
PHYS. LAB.
LECTURE
ARRIVAL
MACH. SHOP
OFF.
ELEC. LAB.
CHEM. LAB.
STOR.
RAD.
OPT. LAB.
X-R.
STUDENT
STAFF
EKG.
STUDENT
EEG.
STAFF
SEMINAR
STUDENT
OFFICES & LABORATORIES
N
TREAT.
NRS. STA.
WAITING
MEDICAL NURSING
UN TREAT.
NRS. STA.
UT.
SIXTH FLOOR
MEDICAL NURSING
0 10 20 30

90-BED HOSPITAL WITH EXCEPTIONAL PLAN

Memorial Hospital of Sheridan County, Sheridan, Wyoming

Fisher & Fisher, Architects

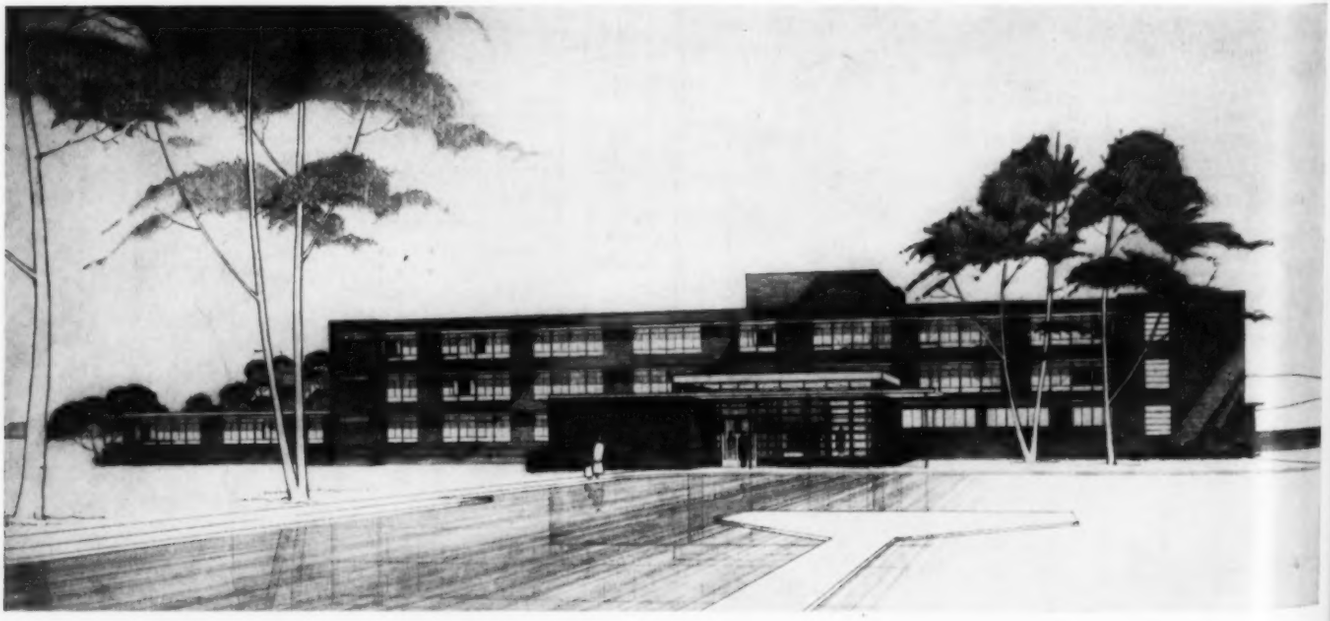
James Hamilton & Associates, Medical Consultants

Milo S. Ketchum, Structural Engineer

Marshall & Johnson, Inc., Mechanical Engineers

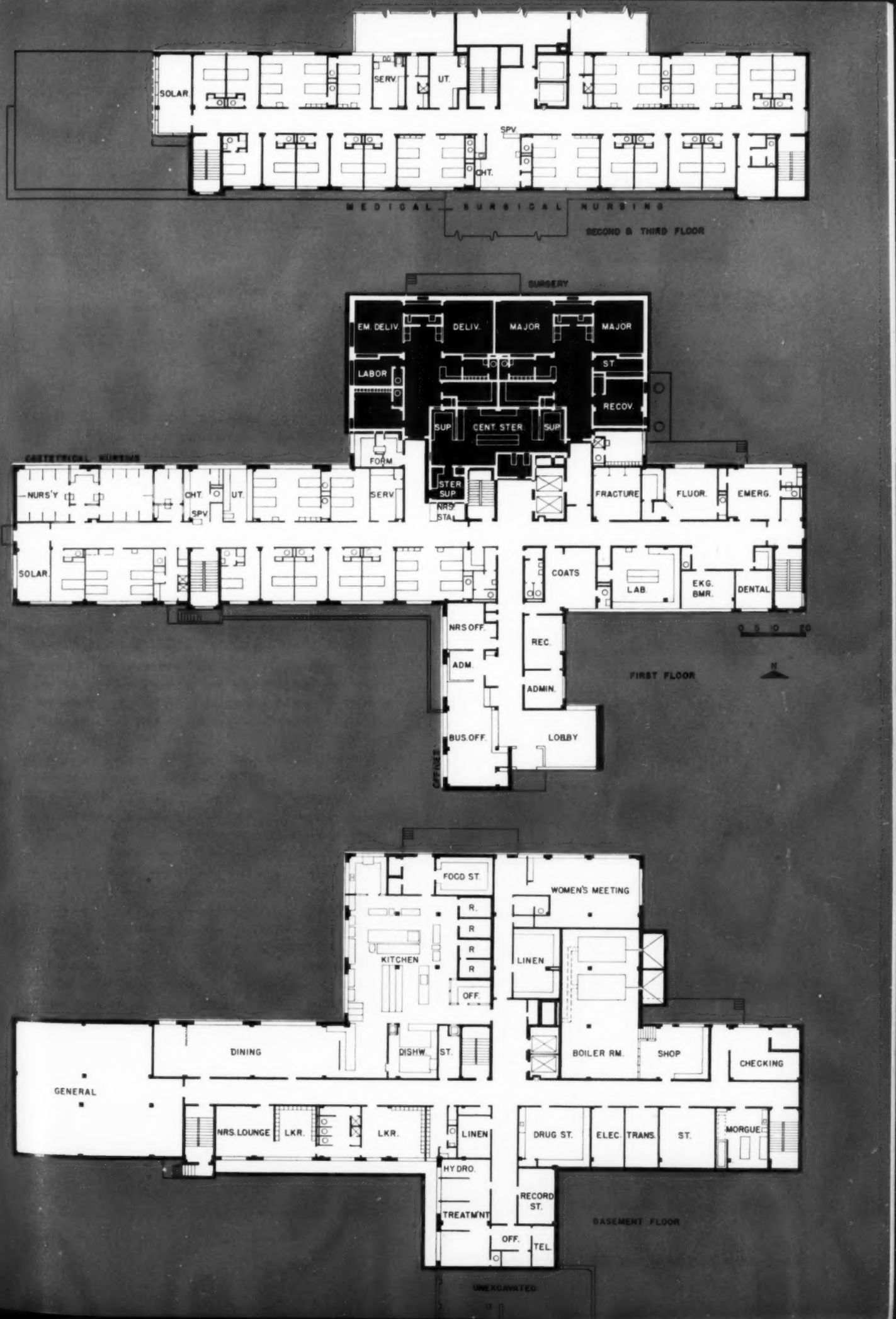
WHILE THIS HOSPITAL warrants study for its well integrated plan, the visitor is first struck by the magnificence of its site, high above the city with uninterrupted views of mountains on three sides. There is some significance here too, as the hospital was originally contemplated for a poor site within the city, and the new site, with its "beauty, clarity, feeling of stability, along with a sense of excitement" was not accepted without a struggle.

The keynote of the first floor planning is the grouping together of all direct patient services. Such a highly integrated correlation promotes not only construction economy but also economy and convenience of operation by a minimum personnel. Notice especially the manner in which surgical and obstetrical suites are isolated from each other and from the rest of the hospital, while still being adjacent to elevators. The central sterilizing department feeds sterile supplies in three directions from a pivotal location (with a dumbwaiter serving upper floors). Routing of soiled materials is very nearly as simple. One of the elevators can be isolated for exclusively surgical use. Obstetrical suite opens only to the maternity corridor. The maternity



nursing unit is kept separate from other patient areas.

A feature of the nursing units is elimination of the two-bed room, this at the suggestion of the medical consultant. He feels that the coincidence of personality maladjustment between two persons is high.


SOLAR
SERV.
UT.
SPV
CHT.
MEDICAL — SURGICAL NURSING
SECOND & THIRD FLOOR
SURGERY
EM. DELIV.
DELIV.
MAJOR
MAJOR
LABOR
ST.
RECOV.
SUP.
CENT. STER.
SUP.
OBSTETRICAL NURSING
FORM
NURS'Y
CHT.
UT.
SPV
SERV.
STER SUP.
NRS STA.
FRACTURE
FLUOR.
EMERG.
SOLAR
COATS
LAB.
EKG. BMR.
DENTAL
NRS. OFF.
REC.
ADM.
ADMIN.
BUS. OFF.
LOBBY
OFFICE
0 5 10 20
FIRST FLOOR
N
FOOD ST.
WOMEN'S MEETING
R.
R
R
R
KITCHEN
LINEN
OFF.
DINING
DISHW.
ST.
BOILER RM.
SHOP
CHECKING
GENERAL
NRS. LOUNGE
LKR.
LKR.
LINEN
DRUG ST.
ELEC.
TRANS.
ST.
MORGUE
HYDRO.
RECORD ST.
TREATMNT
OFF.
TEL.
BASEMENT FLOOR
UNEXCAVATED

HOSPITAL FOR A TOWN OF 5,000 PEOPLE

Pioneers Memorial Hospital, Rocky Ford, Col.

Charles H. Kellogg, Architect

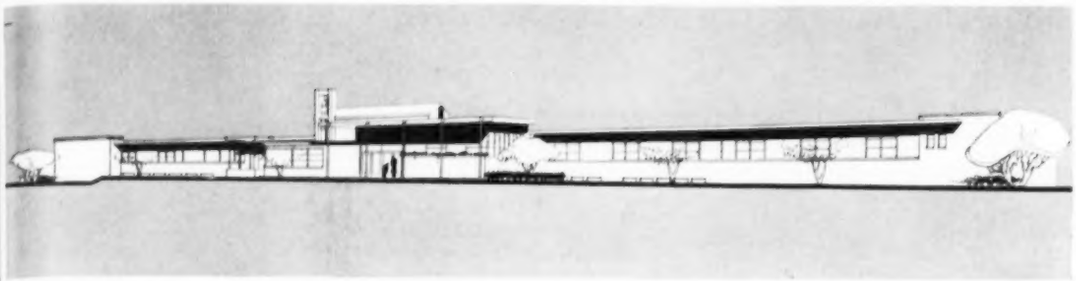
A HOSPITAL for a town of 5,000 population is of itself a commentary on accomplishments of the Hill-Burton program. It was usually considered uneconomical, and it was said that so small a hospital as 30 beds could not really be operated. But when a community decides it needs a hospital it doesn't stop for rules-of-thumb. Actually this hospital operates as one outlying unit of the Mennonite General Hospital at La Junta, Col.; it will also serve as a partial training unit. These considerations have had their affect on the planning.

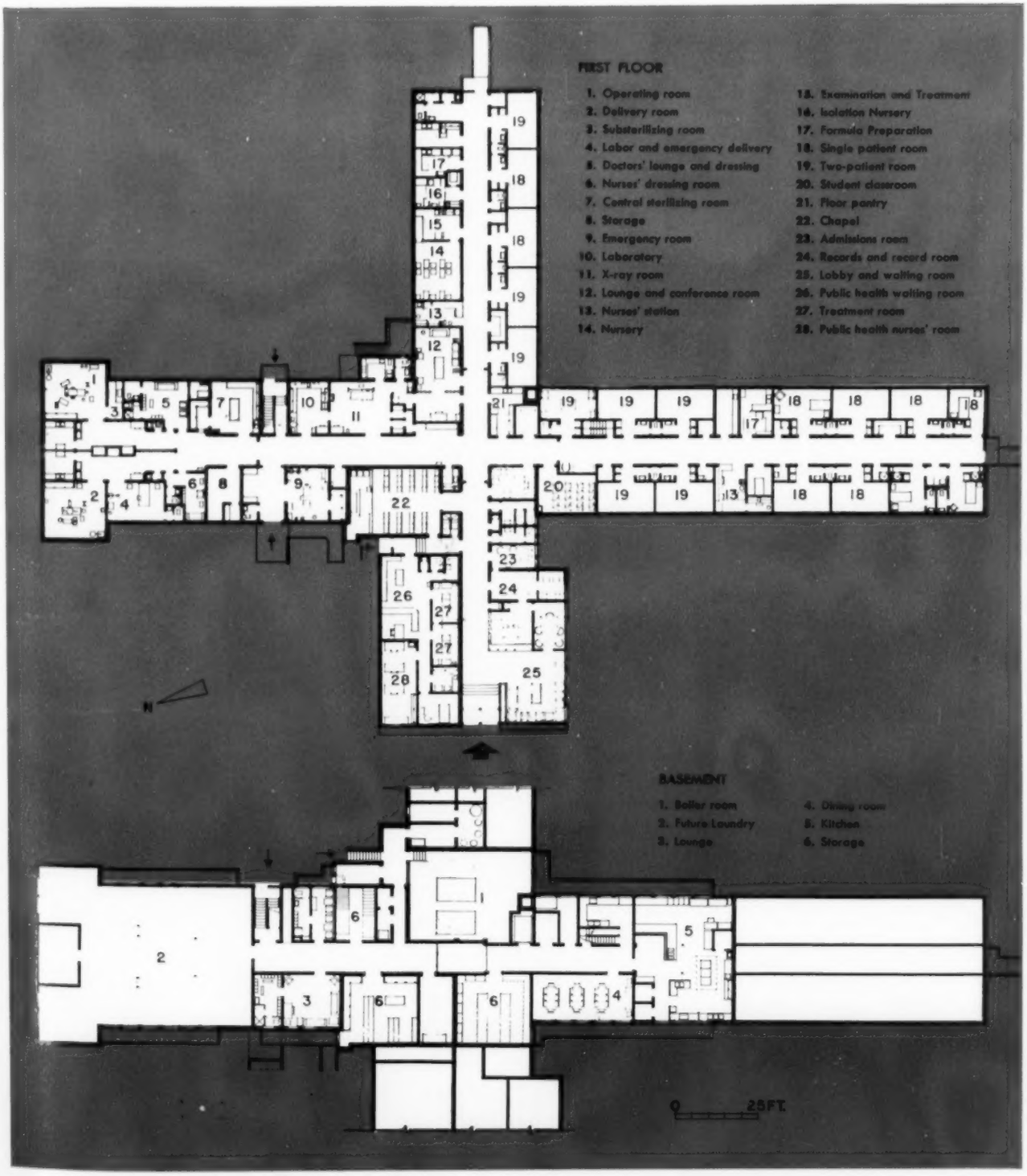
This is another of the new hospitals to use many two-bed rooms with beds paralleling the windows, each patient enjoying the same outlook. Overhanging roofs give protection from the summer sun, and rooms are cooled by evaporative units. Each room has either private or connecting toilet, with bedpan attachments. All but the three isolation rooms are thus arranged for two beds.

It is unusual, of course, to have two nursing stations for a total of 30 beds, but here the separation is kept between surgical and maternity groups. Also the two stations are part of the training program. During night hours, however, the two stations merge in the supervisor's office at the junction of the cross.

A design principle emphasized was planning for a minimum of personnel. One example is the grouping of the laboratory, X-ray department, lounge and conference room, so that one technician can operate both X-ray and laboratory, and is quickly available for conference with doctors. Rooms in the administrative suite are also interconnected for the convenience of a small staff. The kitchen layout was also studied in this respect; the architect reports that the kitchen can be staffed by just two people.

One of the purposes of the Hill-Burton hospital program is admirably illustrated by this hospital for a town of 5,000. Initiated by local citizens, built with local, state and federal funds, it demonstrates the possibility of extending hospital services to small towns and rural areas. This one also houses a branch of the Otero County Health Department; also it was designed for certain training functions for nursing personnel




FIRST FLOOR
1. Operating room
2. Delivery room
3. Substerilizing room
4. Labor and emergency delivery
5. Doctors' lounge and dressing
6. Nurses' dressing room
7. Central sterilizing room
8. Storage
9. Emergency room
10. Laboratory
11. X-ray room
12. Lounge and conference room
13. Nurses' station
14. Nursery
15. Examination and Treatment
16. Isolation Nursery
17. Formula Preparation
18. Single patient room
19. Two-patient room
20. Student classroom
21. Floor pantry
22. Chapel
23. Admissions room
24. Records and record room
25. Lobby and waiting room
26. Public health waiting room
27. Treatment room
28. Public health nurses' room
BASEMENT
1. Boiler room
2. Future Laundry
3. Lounge
4. Dining room
5. Kitchen
6. Storage
N
0 25FT.

SPRAWLING HOSPITAL FOR THE WIDE OPEN SPACES

D. M. Cogdell Memorial Hospital, Snyder, Texas

The Butler-Brasher Company, Architects-Engineers

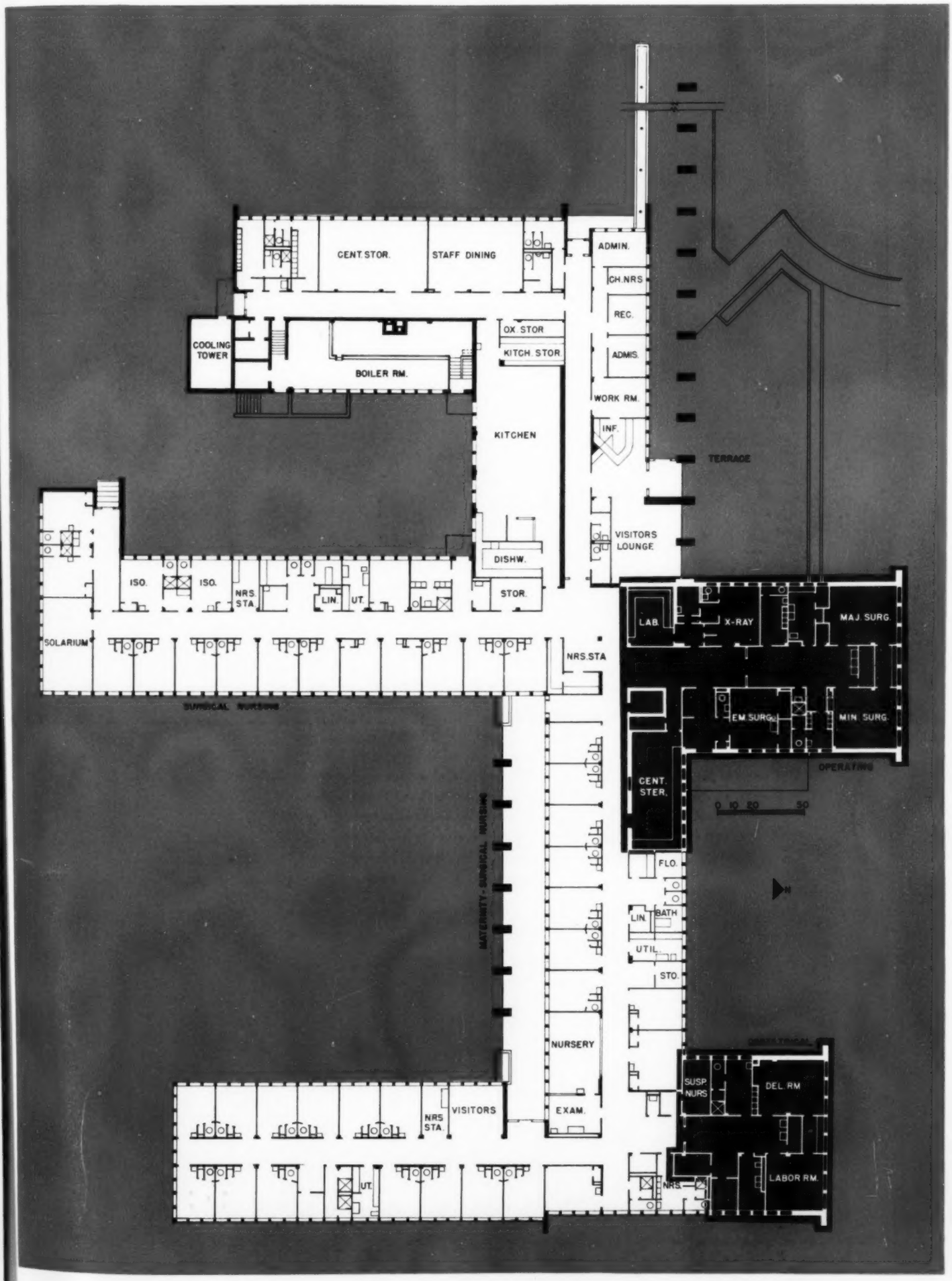
ON THE FLAT LANDS of Texas it is a little difficult to imagine any straining for compactness. Perhaps it is natural, then, that this hospital rambles around the countryside with all the freedom in the world. And in the flat limitlessness of the country it finds a design motive which is strongly expressed.

Though by usual standards it is a small hospital (50 beds nominal capacity) it has quite extensive facilities. And it puts these facilities where it wants them — a full surgical suite in its own wing, a maternity suite in another. X-ray department, laboratory, emergency room, and central sterilizing group around the surgical suite, convenient to it yet positively isolated from it.

COST DATA

Construction	$643,581.80
Mechanical	229,613.00
Electrical	58,024.80
	$931,219.60
Architectural	55,873.17
	$987,092.77
X-ray, Group I & II Equipment	91,449.50
	$1,078,542.27

The two principal nursing units shoot off logically from those two main departments — surgical and maternity — though they are connected by a third nursing unit which can take either type of patient. While at a glance the travel distances seem long, it will be noted that most activity for the nurses is concentrated.


CENT. STOR.
STAFF DINING
ADMIN.
CH. NRS
REC.
ADMIS.
WORK RM.
INF.
TERRACE
COOLING TOWER
BOILER RM.
OX. STOR
KITCH. STOR
KITCHEN
VISITORS LOUNGE
DISHW.
STOR.
ISO.
ISO.
NRS. STA.
LIN.
UT.
SOLARIUM
NRS. STA
SURGICAL NURSING
LAB.
X-RAY
MAJ. SURG.
EM. SURG.
MIN. SURG.
OPERATING
CENT. STER.
0 10 20 30
FLO.
LIN.
BATH
UTIL.
STO.
MATERNITY - SURGICAL NURSING
NURSERY
EXAM.
OBSTETRICAL
SUSP. NURS
DEL. RM
LABOR RM.
NRS.
NRS STA.
VISITORS
UT.

A hospital for a limitless land, this scheme makes a virtue out of distances. Though, as the plan of the previous page shows, the building is sharply departmentalized, so that walking is not the factor that might be supposed. Certainly it is a hospital that gives minimum meaning to the horrible notion of "confinement," and, once landscaped, will offer many pleasant views

© Ezra Stoller

1. Hugh Stubbins, Architect

3 HOUSES

Each Designed to Meet the Problems of its Specific Setting

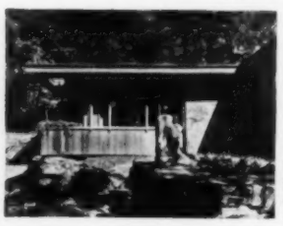
A HOUSE designed for its particular site, capitalizing on the environmental advantages and minimizing the shortcomings in the surroundings, seems such an obvious and natural solution when one builds — yet the percentage of residences so conceived is undoubtedly shockingly small. Architects have only scratched the surface as far as volume of residential work is concerned; but herewith are three examples showing the lasting benefits of complete architectural service.

There is a Massachusetts house designed to overlook a river in two directions; a residence on a flat, treeless plot in a built-up neighborhood in Alabama; and a home on a secluded rock ledge in the Connecticut hills. Three disparate properties, each holding a house tailored to a specific scene.

2. Sherlock, Smith & Adams, Architects

Joseph W. Molitor

3. Joseph Salerno, Architect



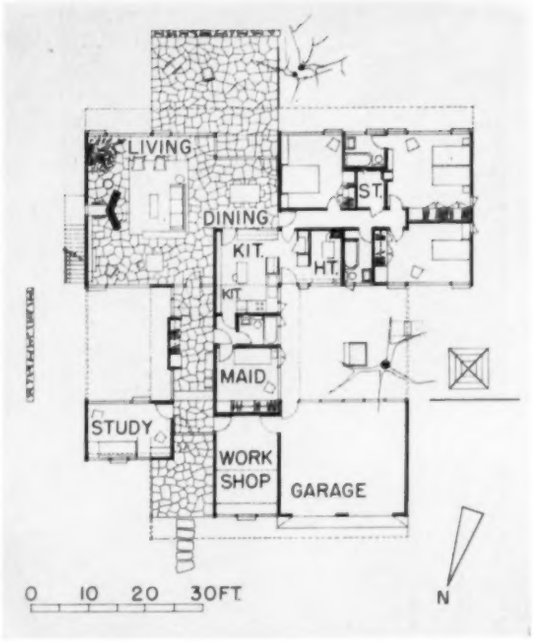
P. E. Guerrero

1. THE VIEW SHAPED THIS HOUSE

Hugh Stubbins, Architect

THE HIGHLY SUCCESSFUL two-way character of the living area, below, came about in gaining a view of the Charles River in two directions. The outside stair to the dead-level roof, p. 191, was requested by the client for the same reason. The unusual free-standing fireplace is built of stone and plaster.

Study of the plan and photographs will reveal several points worth noting: living, dining and principal bedrooms oriented to the view, with bedrooms set apart for privacy by a plan recess and wood slat screen, bottom photo; the long entrance hall, photo below plan, which separates study and workshop from living and can be entered from the garage; the central kitchen, located adjacent the children's play court and drying yard for control and access; the orderly organization of the plan elements within a modular post and lintel structural system, which is in turn frankly expressed in the finished house, both inside and out.



Weston, Massachusetts

The photo immediately below shows the cheerful dining area and its adjacent terrace for outdoor dining with the river view. The kitchen divider is a two-way pass through cabinet, bottom photo, finished in natural redwood with sliding panels of obscure glass and plastic. The kitchen, left, achieves balanced light and ventilation from a clerestory and the windows opposite.

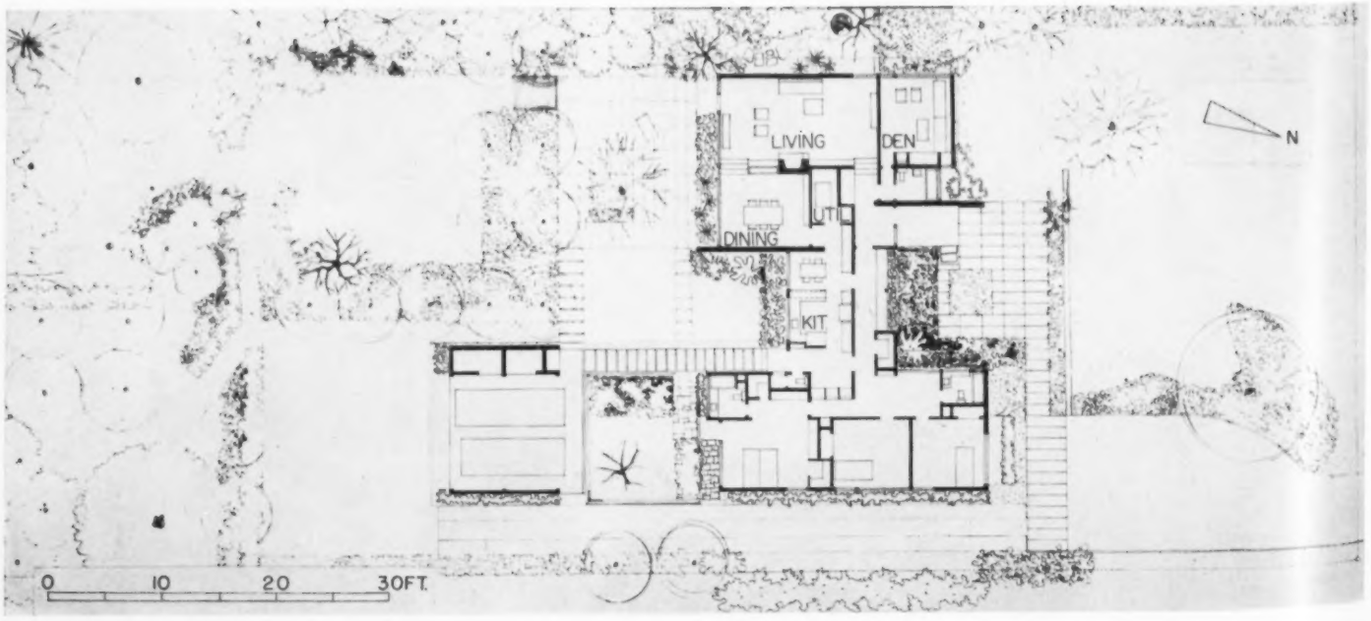
On the right page, bottom, is a view of the court between living area and study, top photo. This pleasant in-and-out and tying-together relationship is enhanced by the device of carrying through the modular lintel for structural expression and unity.

1. THE VIEW SHAPED THIS HOUSE

Hugh Stubbins, Architect

© Ezra Stoller

2. TRADITIONAL NEIGHBORHOOD AND T



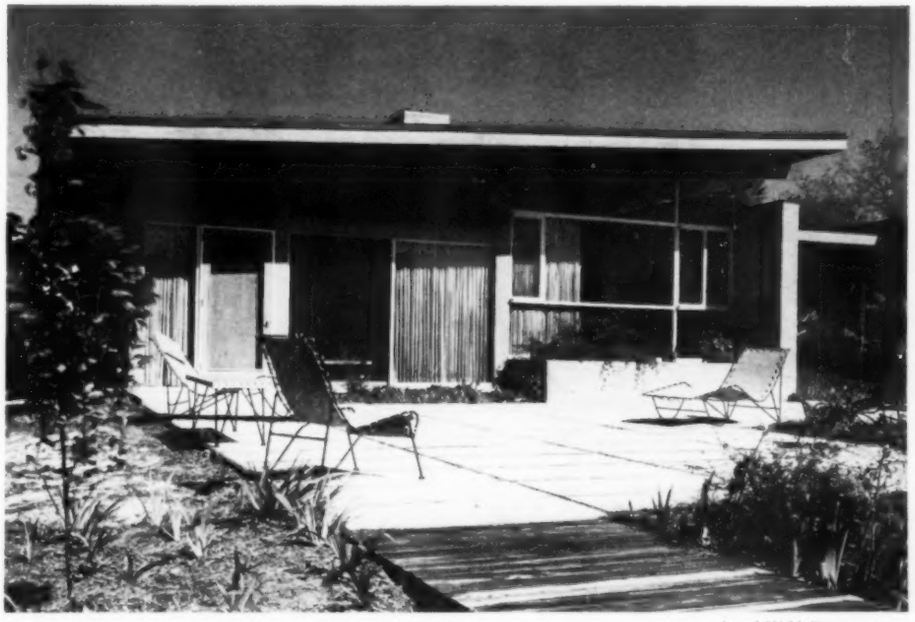
D TREELESS LOT

The Samuel P. Baum Residence,
Montgomery, Alabama

Sherlock, Smith & Adams,
Architects
Charles M. Kelley, in charge

Edward L. Daugherty,
Landscape Architect

Bear Brothers, Contractor



Joseph W. Molitor

LOCATED between two-story traditional houses in an established neighborhood on a plot devoid of trees, this house (see plan) makes the best of its situation. Principal rooms are located to face the south, or off-street portion of the site and to overlook a terrace and sunken garden. A deed restriction forbidding a garage "at the front of the house" led to removing the future carport south of the master bedroom to create a screened garden between.

The scheme stretches the living, service and sleeping zones across the plot; placing the kitchen between the other two zones makes it not only a noise buffer, but in addition a convenient control point for the children's indoor and outdoor play.

2. TRADITIONAL NEIGHBORHOOD, TREELESS LOT

Sherlock, Smith & Adams, Architects

Both the living and dining areas orient south for privacy and winter sun, as does the master bedroom. Materials: pink brick, cypress in natural finish, painted plaster, striated plywood in natural finish; floors of carpet, plastic tile, oak, or flagstone.

Joseph W. Molitor

The elevation to the west is shown below. The east facade, above, is divided by the entrance loggia, at right

P. E. Guerrero

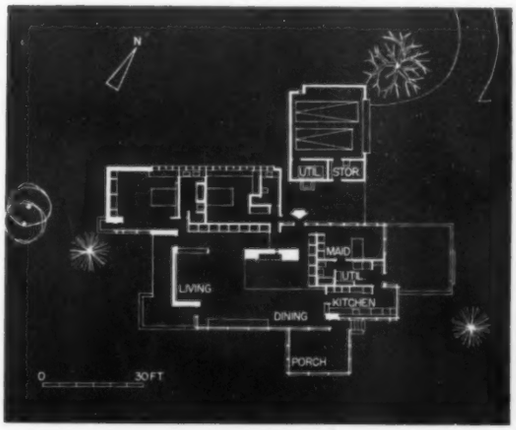
3. ON A ROCK LEDGE IN THE WOODS

The Fromkin House, Westport, Conn.
Joseph Salerno, Architect
James Fanning, Landscape Architect
Richard Goemann, Heating Engineer
Charles Cornell, Foreman

THE ARCHITECT put it quite well when he said, "The central idea was to do as little as possible to a beautiful site. Here was a rock ledge in a secluded area overlooking a small park of lovely trees to the south. Locating the house on the ledge required no study whatsoever; from the points of view of approach, elevation, view, orientation, and the best trees, there was no other possible location for it.

"All of the landscaping was executed with material that was already growing there or might have been. Hemlock, laurel and azalea are the basic plants, with vinca minor used as ground cover. There are no 'gardens' or 'lawns' in the usual sense."

The plan is essentially three more or less enclosed blocks disposed to define a large living area. The entrance is a court or loggia between these elements.

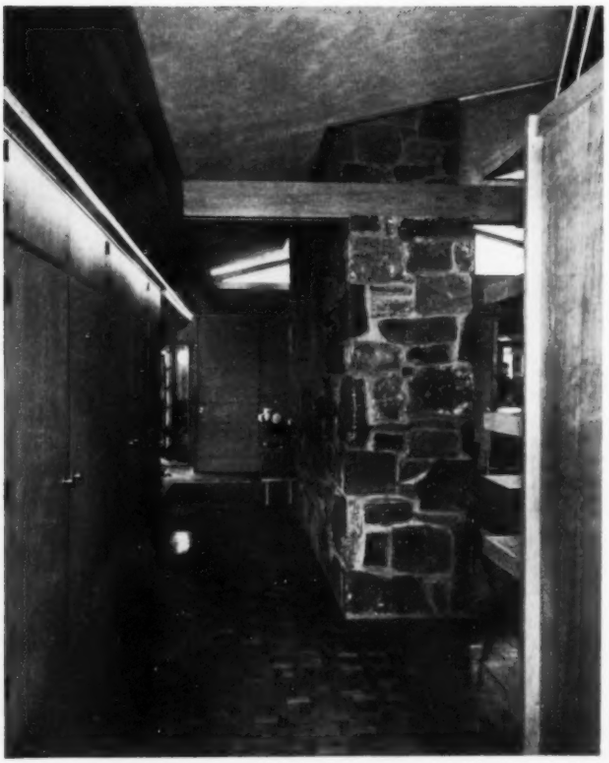


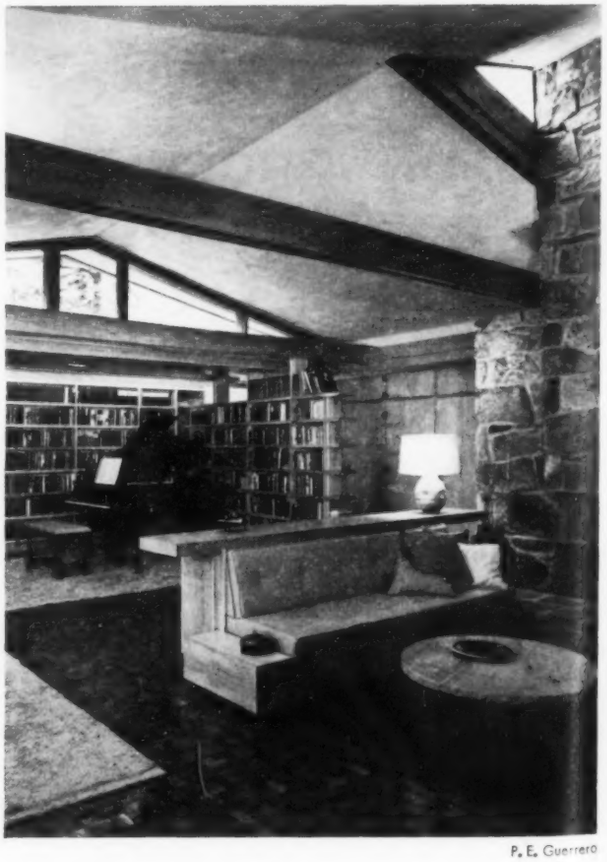
3. ON A ROCK LEDGE IN THE WOODS

Joseph Salerno, Architect

ARCHITECTURAL INTERIORS

Design | *Details* | *Materials* | *Equipment*

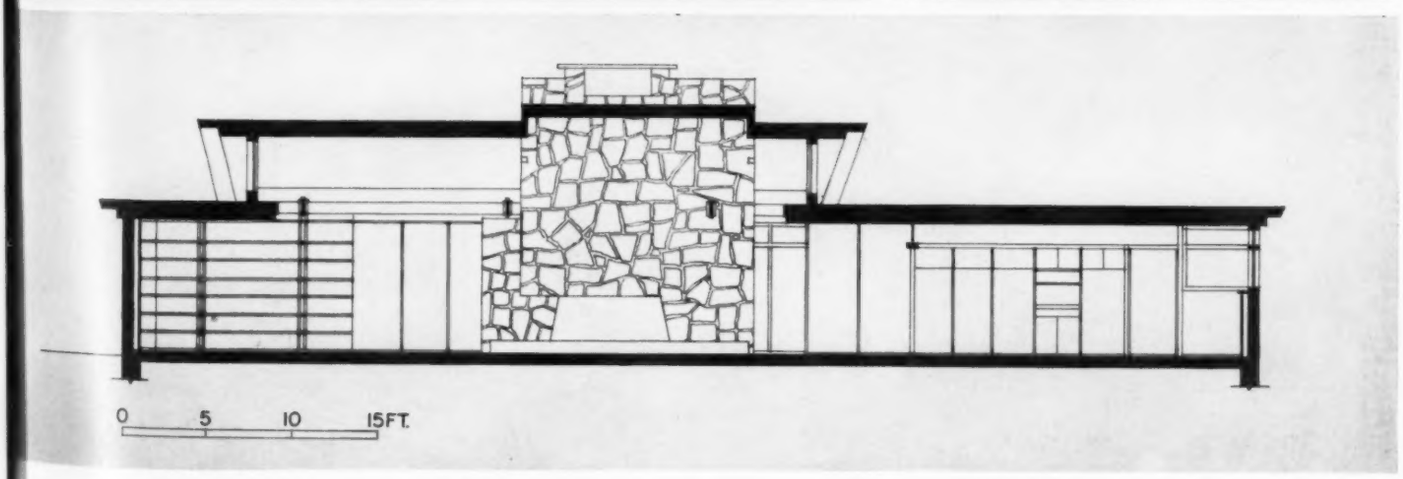




P. E. Guerrero

For clearer spatial definition, the living room is subdivided by fireplace seating and the large mass of the fireplace and by built-in bookshelves. Such a scheme furnishes space for reading, music and also occasional large scale entertaining as well. The room seems comfortable whether it contains two or thirty. The considerable amount of natural light is supplemented by artificial light from incandescent tubes, which yields a pleasant effect. From any spot, one is constantly aware of the magnificent wooded view.

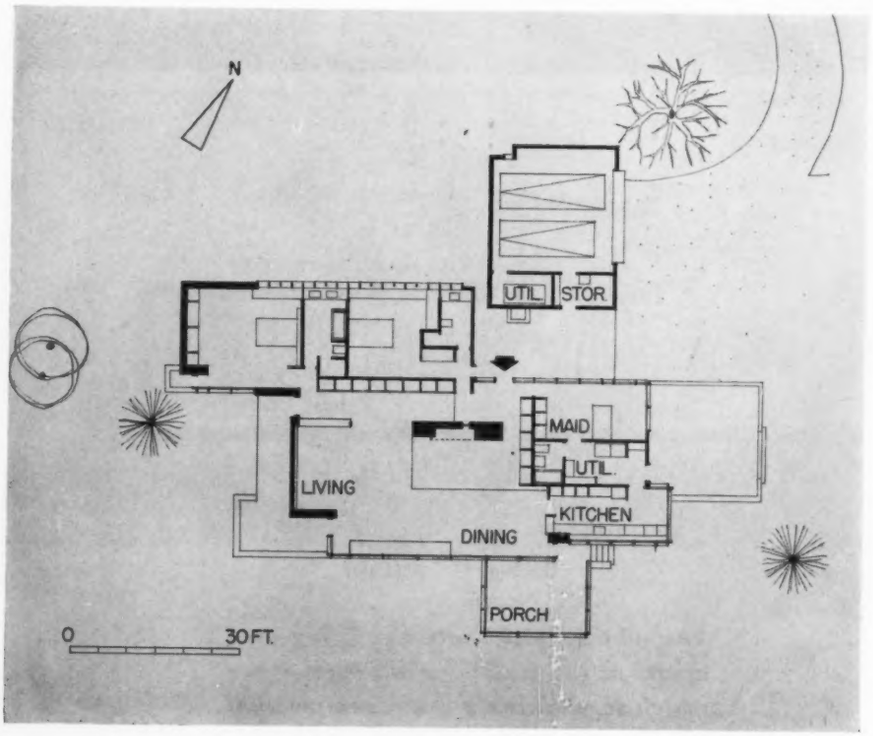
The pitched roof promontory above the living room both trusses the greater span and yields gable-end cross light



The added height sets the living area apart as a flexible, multi-use space which dominates the entire composition

3. ON A ROCK LEDGE IN THE WOODS

Joseph Salerno, Architect



The two photos, this page, look southwest to the park and southeast through the dining area to the porch

P.E. Guerrero

The kitchen, two views above, boasts windows to the south and southeast. Note especially the large number of built-in features in all areas of the house; this is true also in bedrooms, photograph below

BASIC ELEMENTS IN THE PLANNING OF ELECTRICAL SYSTEMS

By Felix B. Graham,
Chief of Electrical Department
Syska & Hennessy, Inc., Consulting Engineers

Article 2: Office Buildings

THE MAJOR CHARACTERISTICS of electrical distribution systems vary in relative importance, according to the type of building in which they are to be installed. Some of these were mentioned in the first article. Below is a list suggesting the sequence of importance for these characteristics in a multi-tenant office building:

1. **Safety (minimum hazard to life and property)**
2. **Flexibility**
3. **Reliability**
4. **Durability**
5. **Ease of maintenance**
6. **Low initial cost**
7. **Small space requirements**
8. **Appearance**
9. **Adherence to owner's standards**

Such a list cannot be hard and fast — it will have to be scrutinized and possibly adjusted for each case. The reasoning behind it is as follows:

(1) *Safety:* There can be no doubt that safety deserves uppermost consideration.

(2) *Flexibility:* Since the final space layouts usually have not been established at the time of design, and tenants' requirements change frequently throughout the life of a building, the electrical system must be designed so that changes and additions can be made with a minimum of cost and inconvenience.

(3) *Reliability:* Interruption of electrical service causes great inconvenience and loss of time and work. Fortunately, most large office buildings are located in areas supplied from dependable network systems of power companies. Where this is not the case, multiple power services and partial-load, stand-by power plants may be advisable.

(4) *Durability:* The importance of durability varies with accessibility and anticipated length of service. For example, conduit buried in a concrete slab must be of very good quality. But a switchplate located in a space which is likely to change in a few years need not be the most durable type.

(5) *Maintenance:* Ease of maintenance also comes ahead of initial cost. A slight increase in cost for more easily maintained equipment is usually made up many times in savings on upkeep and repair.

(6) *Initial cost:* Naturally this must be carefully considered, but it should not be overemphasized. Electrical work accounts for 10 to 15 per cent of the total cost of an office building. Lighting fixtures are a very small portion of the total cost of the building, regardless of the quality of the lighting system. Yet, fixtures are usually among the first items to get the axe.

(7) *Space Requirements:* Since every square foot of rentable area is a potential source of income, the system should use as little rentable space as possible. However, overcrowding limits accessibility and future expansion, and it causes excessive heat to build up, reducing equipment life.

(8) *Appearance:* This is oftentimes of lesser importance than initial cost, because most of the electrical work is either concealed within the structure or in mechanical spaces.

(9) *Standards:* When working on government projects, the electrical designer must adhere to established rules and standards.

What Does the Owner Install?

The extent of the initial electrical installation in an office building is governed by its type. There is the multi-tenant building, erected with a minimum of electrical equipment. In this case the owner may provide only the most basic distribution system and ceiling outlets. The tenant then must install his own fixtures, under-floor duct, receptacles, and all those other items enumerated in the chart following the text.

Or it may be that the owner of the multi-tenant building installs under-floor duct, fixtures, receptacles, clocks and similar items.

It is the one-tenant building, exemplified by the home office building of a large company, where all requirements must be thought of, designed and installed initially.

Lighting still is assumed by some to be the principal element of the electrical system. This is far from the case. The chart shows what a comparatively small portion of the whole system it is, in terms of all functions, but not, of course, power consumption.

This is not meant to underrate the role of lighting.

Lighting

Specifically, here are lighting recommendations for typical office building areas:

FOOT-CANDLE LEVELS	
General office work	30–35 ft-c
Accounting, bookkeeping, business machines	40–50 ft-c
Drafting	60–70 ft-c
Inactive files, reception room, active stairways, washrooms, service areas, corridors	10–15 ft-c
Infrequently used hallways, corridors	5–10 ft-c

For the lighting to be comfortable, the installation should be designed not to exceed the brightness ratios recommended by the Illuminating Engineering Society. These are as follows:

BRIGHTNESS RATIOS	
Between task and adjacent surroundings	3 to 1
Between task and more remote surfaces	10 to 1
Between luminaires or windows and adjacent surfaces	20 to 1
Elsewhere between objects within the normal field of vision	40 to 1

Brightness of fixtures should not exceed these values expressed in foot-lamberts:

FIXTURE BRIGHTNESSES	
From 3 to 30 deg above horizontal	225 to 450 max
From 30 to 45 deg above horizontal	450 to 900 max
From 45 to 90 deg above horizontal	1000 to 2300 max

(A bare fluorescent lamp has a brightness of about 1800 foot-lamberts)

Interiors should be finished to attain the following reflectances:

ROOM AND FURNISHINGS REFLECTANCES

Ceiling	.80+15%
Walls	.50±15%
Furniture	.35±25%
Office Machines and Equipment	.35±25%
Floors	.35±25%

Spacing for even illumination depends on the type of fixture and varies from 50 to 125 per cent of mounting height or ceiling height.

Underfloor Distribution

Requirements for power and communications throughout the office area can be supplied with flexibility by underfloor duct or cellular steel raceways.

Underfloor duct systems are comprised of individual ducts spaced ideally at such intervals that no matter where a desk is placed, part of the desk is over a duct run. In most ducts, there are preset inserts on 2-ft centers, which are covered by the finish floor. Wires are fished through the ducts from junction box to junction box — which are 20 to 60 ft apart. When there is need for a receptacle, a receptacle standpipe is installed.

Depending on the anticipated needs, a system has one, two or three ducts; one duct for telephone, one duct for 120-v power, and one duct for signal and communication wires. Perpendicular to the distribution ducts run the feeder ducts which connect to the lighting panelboards or telephone splice cabinets, either directly or through conduit.

Insufficient connections from underfloor ducts to telephone cabinets can be a bottleneck, and therefore should be provided in generous quantities. Also, the various splice boxes on one floor should be interconnected for greatest flexibility.

With cellular steel floor, the whole floor is a series of raceways. The cells can be used for electric, telephone and signal wires as well as for lighting outlets on the ceiling below — with limitations of accessibility from below. Outlets can be set almost anywhere in the floor.

The Electrical Load

Modern office buildings require from 5 to 7 watts per sq ft without electrically driven refrigeration compressors or 7 to 9 watts per sq ft with compressors of this type. One-half or more of this demand is power. The building utilities include: (1) elevators, (2) moving stairways, (3) air conditioning, (4) ventilation, (5) heating pumps, (6) boiler room auxiliaries, (7) fire pump, (8) air compressors. Additional equipment is shown on the accompanying chart.

Elevator motors are as large as 75 hp. Adjacent elevators should be supplied by feeders that can work as alternates: in case of a feeder failure, the passengers in the affected car can be brought to safety by means of the adjacent car.

Electrically driven refrigeration compressor motors usually take more power than any other equipment. Some of these motors have been as high as 1500 hp. Starting equipment for such large motors must be specially designed to limit the inrush of current to a level which will not affect excessively the voltage on the remainder of the electrical system.

Chilled water and condenser water pumps, cooling tower fans, and air circulating fans account for a large portion of the electrical load. Some air conditioning systems employ window units with electrically powered fans. These fans have a rating of only $\frac{1}{20}$ or $\frac{1}{12}$ hp. But the motors have an inherently low power factor and low efficiency, so that where several hundred of such window units occur in one building, the feeders supplying these small units can be very large.

High Voltage Systems

To distribute such large magnitudes of current requires large amounts of copper. The greater the current, the more the copper. For a given load, if the voltage is doubled, the current and, therefore, copper requirements are cut in half. This is the reason for the recent trend to higher voltage distribution and utilization in large buildings. The most common new system is referred to as the 265/460 v or 277/480 v system.

This system is similar to the customary 120/208 v system in the method of connection. Voltage between any two phase wires is 480 v, and between any phase and neutral, 277 v. Motors are connected three-phase, 480 v; lighting, single phase, 277 v. Only fluorescent or mercury vapor lighting is suitable for 277-v operation.

Lighting at 277 v has been used for some time in industrial plants where the major part of the load consists of 480-v power spread all over the plant. The relatively minor 120-v requirements are supplied through local 480/120-v transformers.

The prime advantage of a high voltage system is that, with 480-v distribution, it requires less than half of the copper used in a 208-v system, which in turn reduces conduit sizes. No increase in conductor insulation is required since standard building wire insulation is rated at 600 v. Conductor sizes are, in addition, kept small by the lesser voltage drop of the high voltage system, making it particularly suitable where long feeders are involved.

On the other hand, a 480/277-v system introduces into the building two or three additional voltages, and, with them, different equipment and some complications. Three phase motors will operate on 480 v. Fractional horsepower motors need 120 v. Fluorescent lighting operates on 277 v, incandescent lighting on 120 v. Electrically operated office equipment requires 120 v for smaller sizes, 208 or 220 v for the heavier machines. All receptacle and underfloor duct outlets supplying the multitude of local appliances used in a modern building must be connected to a 120-v system, which is the voltage at which the auxiliaries, such as clocks, fire alarms, communications and similar systems are supplied.

A recent development which enhances the use of a high voltage system is the local switch for 277-v operation, similar to that now used for 120 v.

Communications and Alarms

For the telephone system, the owner's responsibility is to provide outlets, empty raceways and splice boxes. Telephone instruments, wires, cables and all connections are provided by the telephone company.

When a fire alarm system is installed, it must be audible everywhere within the building. Fire alarm stations should project out from the wall so that they can be seen in long corridors. Gongs may be recessed in partitions, if desirable, for appearance. The supervisory trouble bell should be located in a space where someone is present at all times, so that if any part of the mechanical system fails, it can be investigated and corrected without delay.

Watchmen's tour systems are available in two types — wired and non-wired, the latter being more common.

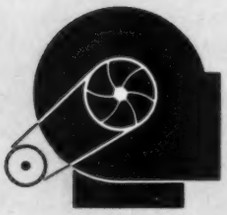
Clocks may be the complete master type with self-regulation, or the type without self-regulation. Three basic master systems are available: (1) minute-impulse, wired; (2) synchronous, wired; and (3) synchronous, electronically controlled.

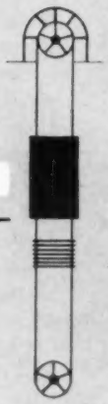
For a chart outlining office building electrical systems, please turn the page ➔

BUILDING UTILITIES

AIR HANDLING

Supply Air Fans
Return Air Fans
Garage Exhaust Fans
Toilet Exhaust Fans
Window Air Conditioners



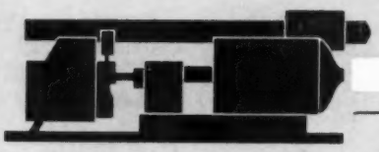


TRANSPORTATION

Elevators
Moving Stairways
Dumb-waiters
Conveyors
Hoists
Door Operators

COOLING

Refrigeration Machine
Condenser Water Pump
Chilled Water Pump
Cooling Tower



MAINTENANCE

Central Vacuum Cleaning System
Incinerator
Waste Paper Baler and Hoist
Shop Machinery
Floor Machines

WATER CIRCULATION

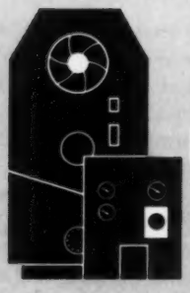
Domestic Water Pumps
Hot Water Circulating Pumps
Sump Pumps
Ejector Pumps
Fire Pump
Sprinkler Pump
Chilled Drinking Water Pumps

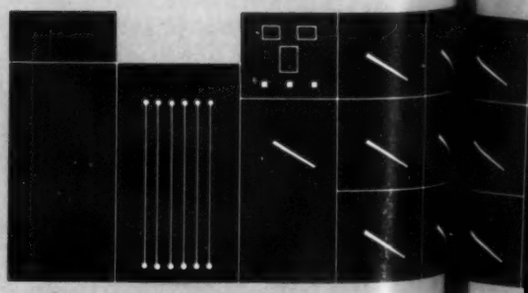
EQUIPMENT CONTROL AND ALARMS

Remote Control and Indicating Board
Air Compressors
Temperature Indicating System
Sump Pit
Ejector Pit
House Tank
Cooling Tower Water
Steam Pressure
Elevator
Air Duct Smoke and Fire

HEATING

Oil Burner
Oil Heaters
Fuel Pumps
Stokers
Forced Draft Fans
Induced Draft Fans
Boiler Gauge Lights
Emergency Shut-off
Snow Melting System
Liquid Pumps
Electrical Cables

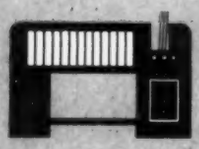


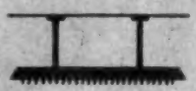


BUILDING FUNCTIONS

OFFICE EQUIPMENT

Desk Lights
Local Fans
Dictating Machine
Central Dictation System
Electric Typewriters
Calculating Machines
Addressographs
Water Coolers
Postage Meters
Business Machines, e.g.
  Punched Card Sorter
  Electronic Statistical Machine
Printing (Blueprints, etc.)
Microfilm Viewing Apparatus





LIGHTING

General Lighting
Architectural Lighting
Signs
Obstruction Lighting
Building Flood Lighting
Stairs
Exits
Sidewalk Lighting
Emergency Lighting

MISCELLANEOUS

Building Lightning Protection
Tenants Requirements (food service equipment, lighting, air conditioning, etc.) for:
  Drug Store
  Restaurant
  Bank
  Gift Shop
  Tailor Shop
  Newsstand, etc.
Vending Machines

COMMUNICATIONS

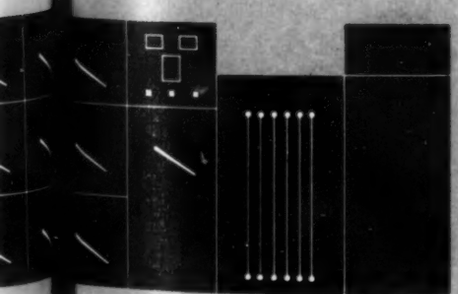
Telephone
  Main Terminal Room
  Switchboard Room
  House Cables
  Terminal Boxes
  Individual Wires to Phones
  Instruments
Leased Lines for:
  Teletype
  Time Signals
  Stock Market Tickers
  Central Station Alarms
TV Master Antenna System
Inter-Office Communications

SECURITY ALARMS

Watchman System
  Central, wired
  Portable, non-wired
Burglar
Hold-up
Exit Door
Fire
Sprinkler
Garage Air Carbon Monoxide
Fire Standpipe Signalling

SOUND

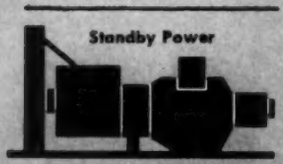
Wired Music
Public Address System
Paging



Incoming Electrical Power
Transformers
Network Protectors
Main Switchboard
Metering Equipment
Transformer Vaults

TIME

Clock System
  Master Clock
  Individual Clocks
  Dismissal Signals
  Attendance Recorders
  Time Stamps



Standby Power

TWO DEVELOPMENTS IN HOSPITAL EQUIPMENT AND CONSTRUCTION

1. Institute of Physical Medicine and Rehabilitation, New York University — Bellevue Medical Center, New York City. Skidmore, Owings & Merrill, Architects

2. Jackson-Madison County General Hospital, Jackson, Tennessee
J. Frazer Smith & Associates, Architects & Engineers

1. Equipment for the Disabled: Architects

Acme Newspictures

As the first of its type, the Institute of Physical Medicine and Rehabilitation has become a prototype for similar centers over the world. It was conceived by its director, Dr. Howard A. Rusk, and designed—including the special equipment shown here—by the architects in collaboration with Dr. Rusk. • The cafeteria serving table, made almost entirely of stainless steel,

2. Dry-Wall Construction: Architect gave contractor option of using two-ply gypsum

DURING THE PLANNING stages of this hospital, there was an acute shortage of plasterers in the area where it was to be built. So the architect wrote the specifications giving the general contractor the option of using 2-ply gypsum wallboard instead of plaster on nearly all of the walls and ceilings in the 125-bed hospital. The contractor chose dry-wall construction, and this hospital is believed to be the first to have used it. This was four years ago, and, now, dry wall has been used again in the hospital's new 75-bed wing.

The architect, Frazer Smith, has two reasons for giving the contractor the option of using dry wall or plaster: (1) he doesn't want to bar plaster if the contractor finds it more economical, and (2) he feels that either lath and plaster or 2-plys of ⅜-in. gypsum wallboard are satisfactory for an institutional building.

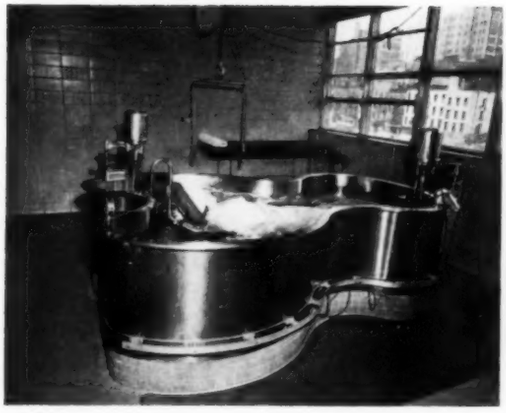
Hedrich-Blessing

Crew nailing first layer of gypsum wallboard to wood studs. Layers are each ⅜-in. thick

Spreading adhesive over back of face layer, which will be applied in vertical strips over first layer

work with a doctor and manufacturers in its design

is easily accessible to both wheel chair patients and employees. The entire unit can be moved, if necessary, during cleaning. • Telephone booths, 3 by 5 ft, serve standard use and also allow wheel chair and stretcher patients easy access. Interiors are surfaced with perforated stainless steel acoustical liners. • The stainless steel shower chair, designed by the architects and



Dr. Rusk, is arranged so that wheel chair patients can be seated with minimum effort; after it is swung into the shower stall, it can be locked in place. • A stainless steel Hubbard-Currence tank is used in hydrotherapy. The tank rests on a tile base to aid sanitation. • A smaller tank, constructed entirely of seamless welded, stainless steel, is used for arm therapy treatment.

panels

The 2-ply gypsum wallboard, which is used in all the patient nursing areas, all administrative areas, the dietary area and parts of the diagnostic and treatment areas, is said to meet fire-resistive requirements for this type of occupancy. When applied over wood studs, 2-plys of $\frac{3}{8}$-in. gypsum board provide a 1-hr rating.

Some plaster was used in the original hospital, but it is a specially formulated type used in the X-ray room for protection against radiation.

In the corridors and other areas where sound control is important, suspended-type acoustical tile was specified. In service areas and other areas subject to abuse, the specifications called for the application of cement asbestos panels over a $\frac{1}{2}$-in. gypsum wallboard base.

In addition to this hospital, the contractor also chose dry-wall construction for the Obion County General Hospital in Union City, Tenn.; the Le Bonheur Children's Hospital in Memphis; and the Sherwood Forrest and Kansas Street Schools in Memphis.

The economy of 2-ply gypsum wallboard was demonstrated, according to Frazer Smith, by the fact that it was chosen almost invariably by the contractor when he was given the option.

Temporary nailing of face layer. Minimum nailing holds panel until adhesive develops adequate bond

Installing cement asbestos panels over wallboard in corridor

Metal runner for ceiling is installed with powder-actuated tool

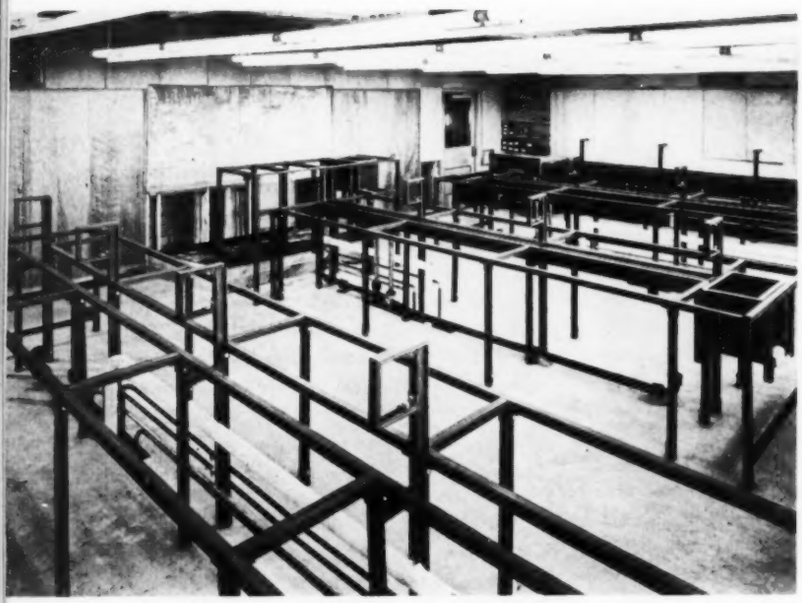
PRODUCT REPORTS

Materials / Equipment / Furnishings / Services

1.

2.

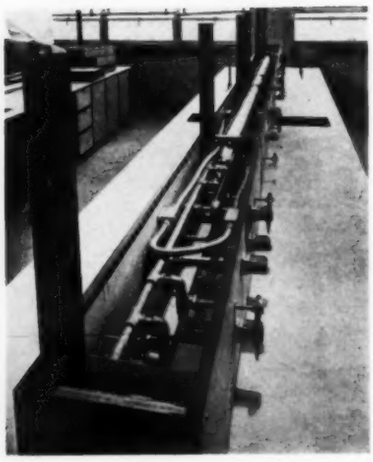
1. Graduate lab in use 2. Basic framework for double width, four unit bench with sink and lead-lined wood drain in place 3. Details of framework. Top and drain in place 4. Overall view framework for 30 students elementary lab. Raised section in middle background is instructor's desk



4.

5.

6.



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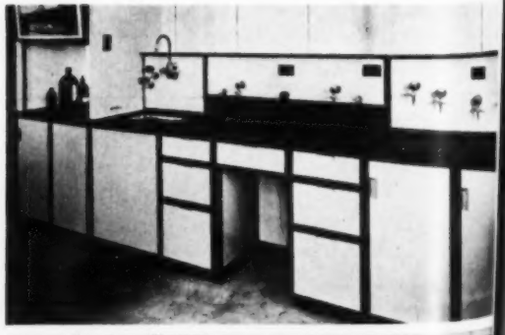

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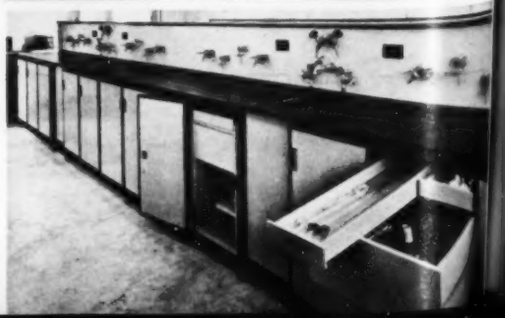


9.

CHANNELS FORM FRAMEWORK FOR LAB FURNITURE

3.

6.

5. **Partly finished elementary lab 6. Completed elementary lab 7. Utility lines in raceway above center bench 8. Graduate laboratory showing shortened unit service as base for open face hood 9. Close up of cabinet arrangement**

Unistrut, U-shaped channels of various weights and a variety of flat and angle connecting fittings, has been put to a new use — framework for lab furniture. *Unistrut* was chosen by the designer, Raymond C. Dragoo Jr., assisted by Dr. Kenneth C. Cook, chemist and Richard N. Kuhlman, University architect, to meet the requirements set by the Chemistry Department of the University of Oklahoma: suitability for present needs and ease of alteration.

The basic feature is an independent, demountable steel framework with all other components, attached to the framework with screws or bolts, separately removable. Utility lines are attached to one member only of each bench unit.

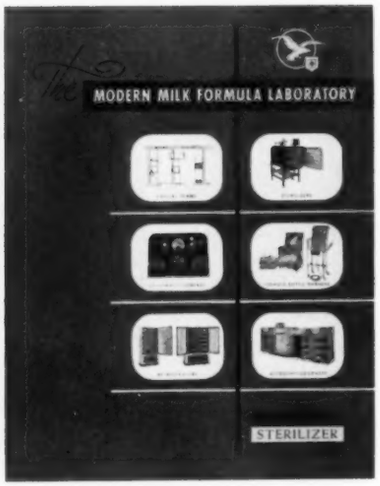
The units, which were constructed by the Department of the Physical Plant under the direction of W. W. Kraft, are tied together with continuous channels at the top legs. This permits building the tables in multiples of a standard unit; at the same time, units may be constructed any length desired and may be joined with the same rigidity as if the whole bench had been built as a unit.

Utility lines are attached by pipe clips to one leg that extends above the table top in each 54 in. unit. They are carried inside the 7- by 7-in. cantilevered support at the top of this leg. Reagent shelf and aprons are attached to the same support. Steam, cold-water, gas, compressed air and a-c current lines are carried on all benches in a uniform pattern. Additional outlets can be installed without altering present lines.

Wooden cupboards are fabricated and painted, then placed in the framework and fastened with screws. Drawer gliders of lightweight steel channel attached to a frame member are adjustable.

Exposed wood members are ¾-in. plywood, banded with steel channels. Panels are attached through the metal banding to the steel frame members. Desk tops are ¾-in. cement-asbestos board. *Unistrut Products Co., 1013 W. Washington Blvd., Chicago 7, Ill.*

(*Continued on page 222*)



Right: Illustration of new catalog on equipment for hospital milk formula laboratories

HOSPITAL EQUIPMENT

The Modern Milk Formula Laboratory Publication G-120R3 is a new catalog describing the American plan for the modern milk formula department. Small, medium and large hospitals are discussed. Architectural layouts and cross sections are used in two-page spreads which clearly describe each class of hospital. In addition, such equipment as formula sterilizers, bottle warmers, bottle carriers, refrigerators, workcounters, washing units, and other accessory equipment are described. 24 pp, illus. *American Sterilizer Co., Erie, Pa.*

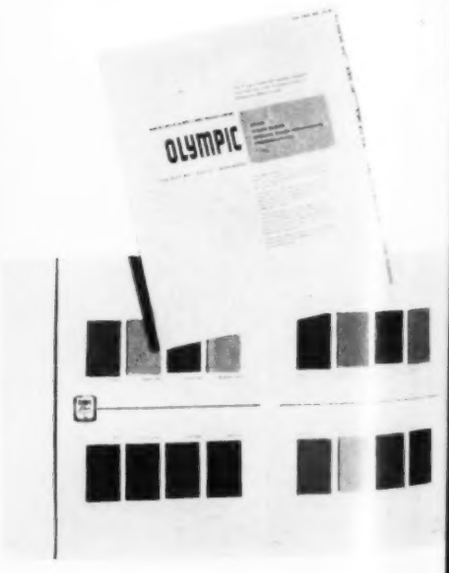
PLYWOOD

The Weldwood Catalog introduces several of the new product developments including Surfwood, a decorative panel with the texture of old driftwood and Armoply Chalkboard, a different metal-on-plywood material designed for use as a writing surface for chalk. The booklet contains factual descriptions, recommendations, sizes and approximate prices for every product in the *Weldwood* line. 12 pp, illus. United States Plywood Corp., 55 West 44 St., New York 36, N. Y.*

WOOD STAINING

Olympic AIA File No. 25-B contains descriptive and application data on a number of Olympic products made especially for California and Western red cedar exteriors. Actual wooden chips for each of the 16 *Olympic* stain colors are mounted in the file folder.

In addition, there is a section of informational material in the same file on Olympic wood blend, developed to accent the grain of all smooth surface woods. Wooden chips illustrating each of the six colors and the clear shade are mounted in that section. 14 pp, illus. *Olympic Stained Products Co., 1118 Leary Way, Seattle 7, Wash.*



Two catalogs on finishes: new stains, plywoods

CODE CALL SYSTEMS

New *Code Call Systems* tells of the advantages, features and operation of Wheelock Code Call Signals. Diagrams for high or low voltage systems and for duo-potential systems are included. 6 pp, illus. *Wheelock Code Call Signal Engineering and Mfg. Co., 154 W. 14 St., New York 11, N. Y.*

ELECTRONIC AIR CLEANERS

Trion At Work, Study No. 109. Booklet describes application, requirements and benefits. Examples of usage are shown through photographs and description of the Alcoa Building, where the product is applied throughout. 4 pp., illus. *Trion, Inc., 1000 Island Ave., McKees Rocks, Pa.**

COLORING CEMENT

Horn AE Dispersed Black is a brochure describing a scientifically formulated carbon black dispersion, used for the darkening of air-entrained or regular concrete in either monolithic or topping construction. This brochure gives testing procedure, data on mixes, compressive strength, flexural strength and uses of the product. 6 pp, illus. *A. C. Horn Co., Inc., Long Island City 1, N. Y.**

(Continued on page 276)

Other product information in Sweet's Architectural file, 1953

SIMPLIFIED FRAMING METHODS—6: Trussed Rafters

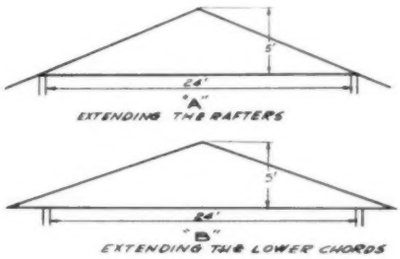
Presented through the cooperation of the National Association of Home Builders Research Institute

The following pages are extracts of "Trade Secrets Report No. 2" prepared for the N.A.H.B. Research Institute under the direction of Leonard G. Haeger, with Lee Frankl, Consultant. The report stresses economies of using trussed rafters in houses, and is based on the following:

1. To use basic engineering data for the design of trussed rafters.

2. To pre-cut truss members from smaller sizes of lumber. To preassemble trusses on the site, or to purchase complete truss units—if economical and if deliveries are arranged to a construction schedule.

3. To use trusses so as to increase flexibility in the design of interiors for a basic slab or basement plan, and installed as A or B at right.

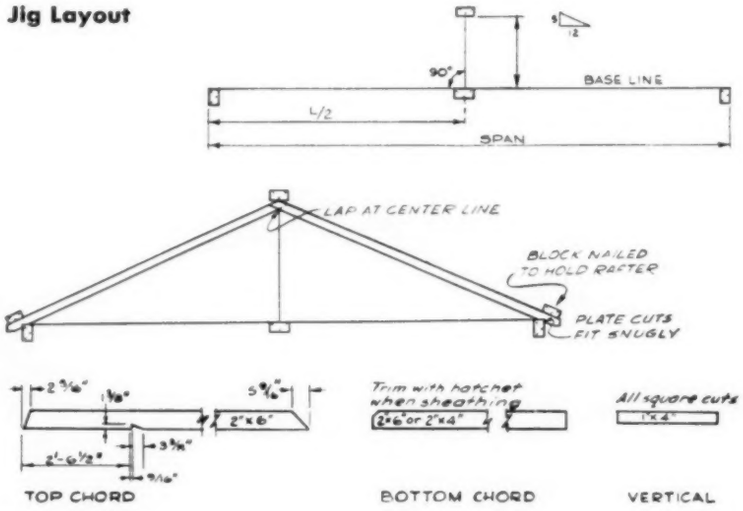


King Post Truss

The simplest of all truss designs, the King Post Truss, consists of rafters and ceiling joist with a fourth member connecting the peak and the joist and at right angles to the joist. It is recommended for spans up to 20′–8″ outside to outside of supporting walls, and spaced 2′–0″ o.c.

This truss design was used in the "Industry Engineered Homes Program" sponsored by the Producers' Council and the National Retail Lumber Dealers Association. The research program and the construction of 6 houses using a 16′–8″ span was carried out by the Small Homes Council of the University of Illinois under the direction of James T. Lendrum. Since then, the Small Homes Council has developed additional data described here.

Jig Layout



Measure and snap chalk base line on subfloor. The length is outside to outside of supporting walls. Mark center lines at right angles to base line. The length of the center line is governed by a 5/12 pitch. Material must be 1100 p.s.i. stress grade or better. This is equivalent to coastal region douglas fir #2.

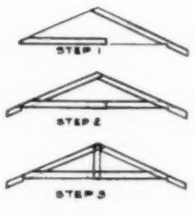
Place built-up jig blocks, at ends and centers, of base line at the peak. Cut one pair of top-chords—see member size table. Place chords with notches fitted over jig blocks. These chords lap precisely over center line at peak; the plate cuts must fit snugly on jig blocks. Place two more jig blocks above rafter heels—above plate cuts.

Check all cuts on top chords. When correct use as a pattern.

Cutting Diagrams

Assemble truss members in the following order. Lay right top chord and left bottom chord in jig. The left top chord and right bottom chord are then placed. They lap the first two chords placed. Finally the vertical post is placed.

Nail according to schedule.



*Member lengths are for 30" overhang. Change is needed.

MEMBER SIZE TABLE

SPAN (O.C. TO O.C.)	16'-8"	17'-0"	17'-4"	17'-8"	18'-0"	18'-4"	18'-8"	19'-0"	19'-4"	19'-8"	20'-0"	20'-4"	20'-8"	
TOP CHORD				2-2"×6"-	14's					2-2"×6"-	16's			NO ATTIC STORAGE
BOTTOM CHORD		2-2"×4"-	10's			2-2"×4"-	12's							
VERTICAL	1-1"×4"-4'					1-1"×4"-5'								
TOP CHORD			2-2"×6"-	14's					2-2"×6"-	16's				ATTIC STORAGE
BOTTOM CHORD	2-2"×6"-	10's			2-2"×6"-	12's								
VERTICAL			1-1"×4"-5"											

MILLS MOVABLE WALLS GIVE YOU

Space Control FOR PERMANENT EFFICIENCY

• National Malleable and Steel Castings Company employs *Space Control* throughout its new Technical Center to make sure of future as well as present efficiency in its use of space for advanced testing and research. Mills Movable Metal Walls will keep these interiors flexible, always adaptable to changing requirements, because they can be moved to fit new layouts—quickly, easily and at very low cost—whenever the need occurs. Complete changes can usually be made overnight or during a week end, sometimes in a matter of hours, without commotion, dust, debris or interruption of normal space usage.

Executive Office, Technical Center of National Malleable and Steel Castings Company, Cleveland, Ohio. Dalton & Dalton and Associates, Architects.

With this efficient mobility Mills Walls combine distinctive architectural design, attractive appearance and structural stability, achieved by Mills exclusive all-welded flush panel construction. Available in a wide variety of pleasing colors in baked-on enamel finishes, they require no maintenance except occasional washing to keep them looking fresh and new.

Write for the new 68-page Mills Catalog or see it in Sweet's Architectural File.

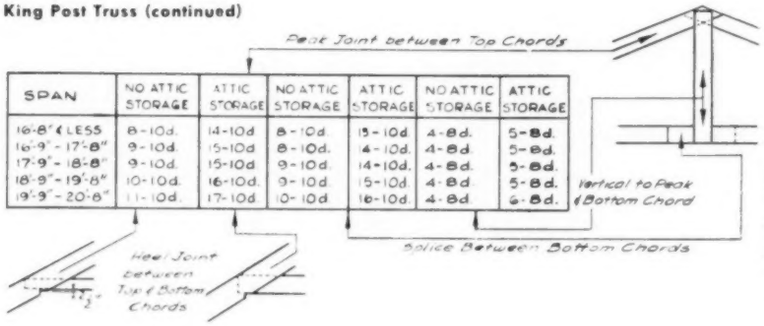
MILLS METAL WALLS

THE MILLS COMPANY • 954 Wayside Road • Cleveland 10, Ohio
Representatives in All Principal Cities

SIMPLIFIED FRAMING METHODS—7: Trussed Rafters

Presented through the cooperation of the National Association of Home Builders Research Institute

King Post Truss (continued)



SPAN	NO ATTIC STORAGE	ATTIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE
16'-8" & LESS	8-10d.	14-10d	8-10d.	13-10d.	4-8d.	5-8d.
16'-9" - 17'-8"	9-10d.	15-10d	8-10d.	4-10d.	4-8d.	5-8d.
17'-9" - 18'-8"	9-10d.	15-10d	9-10d.	14-10d.	4-8d.	5-8d.
18'-9" - 19'-8"	10-10d.	16-10d.	9-10d.	15-10d.	4-8d	5-8d.
19'-9" - 20'-8"	11-10d.	17-10d	10-10d	16-10d.	4-8d.	6-8d.

LOADING DATA

NO ATTIC STORAGE	SPACING 24" O.C.	ATTIC STORAGE 20 p.s.f. (no loads necessary for ceiling)
2.5 p.s.f.	ROOFING	2.5 p.s.f.
2.5 p.s.f.	SHEATHING	2.5 p.s.f.
2.5 p.s.f.	TRUSS	2.5 p.s.f.
20.0 p.s.f.	SNOW	20.0 p.s.f.
23.0 p.s.f. (uplift)	WIND	23.0 p.s.f. (uplift)

W Truss Small Homes Council 5/12 slope, 20′–8″ to 32′–8″ spans, 2′–0″ o.c. spacing

1. Determine out-to-out dimensions of span.

2. Locate span on member size table.

NO ATTIC STORAGE

SPAN ➡	21′	22′	23′	24′	25′	26′	27′	28′	29′	30′	31′	32′
two upper top chords	One 2"x4"x14'		One 2"x4"x16'		One 2"x6"x18'				Two 2"x6"x10'		Two 2"x6"x12'	
two lower * top chords	Two 2"x4"x10'		Two 2"x6"x12'		Two 2"x6"x12'						Two 2"x6"x14'	
two bottom chords	Two 2"x4"x12'		Two 2"x4"x14'			Two 2"x4"x16"				Two 2"x6"x18'		
two short diagonals	One 1"x4"x8'			One 2"x4"x8'		One 2"x4"x10'						
two long diagonals	One 1"x4"x14'			One 2"x4"x16'**			One 2"x4"x18'**					

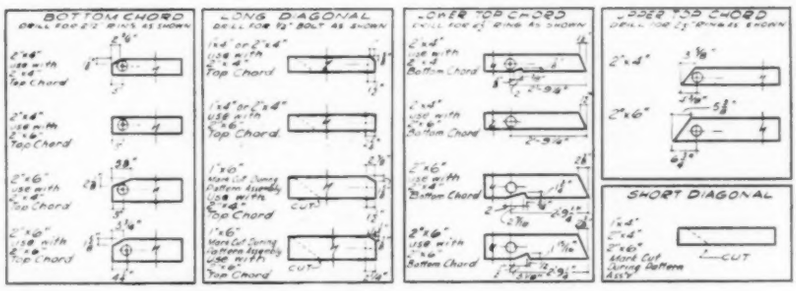
*The length of these members provide a 30" horizontal overhang. If a different overhang is needed, change lengths & cutting diagrams.
**Laterally brace long diagonals at center with slabs or solid bridging.

ATTIC STORAGE

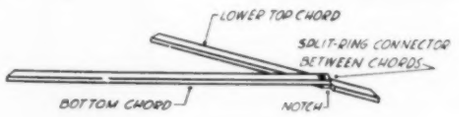
SPAN ➡	21	22	23	24	25	26	27	28	29	30	31	32
Two Upper Top Chords	One 2"x4"x14'		One 2"x6"x16'			One 2"x6"x18'			Two 2"x6"x10'			
Two lower * Top Chords	One 2"x4"x18'		Two 2"x6" x 12'								Two 2"x6"x14'	
Two Bottom Chords	Two 2"x4"x12'	Two 2"x6"x12'	Two 2"x6"x14'				Two 2"x6"x16'				Two 2"x6"x18"	
Two Short Diagonals	One 1"x4"x8'		One 2"x4"x8'			One 2"x4"x10'						
Two Long Diagonals	One 1"x6"x14'	One 2"x4" x14'	One 2"x4"x16'			One 2"x4"x18'*						

* The length of these members provide a 30" horizontal overhang. If a different overhang is desired, revise lengths & cutting diagrams.

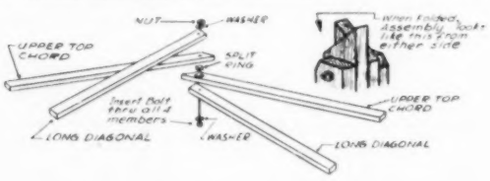
3. Cut all members for one truss. Drill for split rings and bolts as shown in cutting diagrams (right):



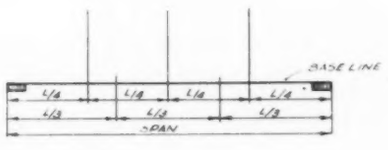
4. Make identical heel assemblies for each end of truss using split ring:

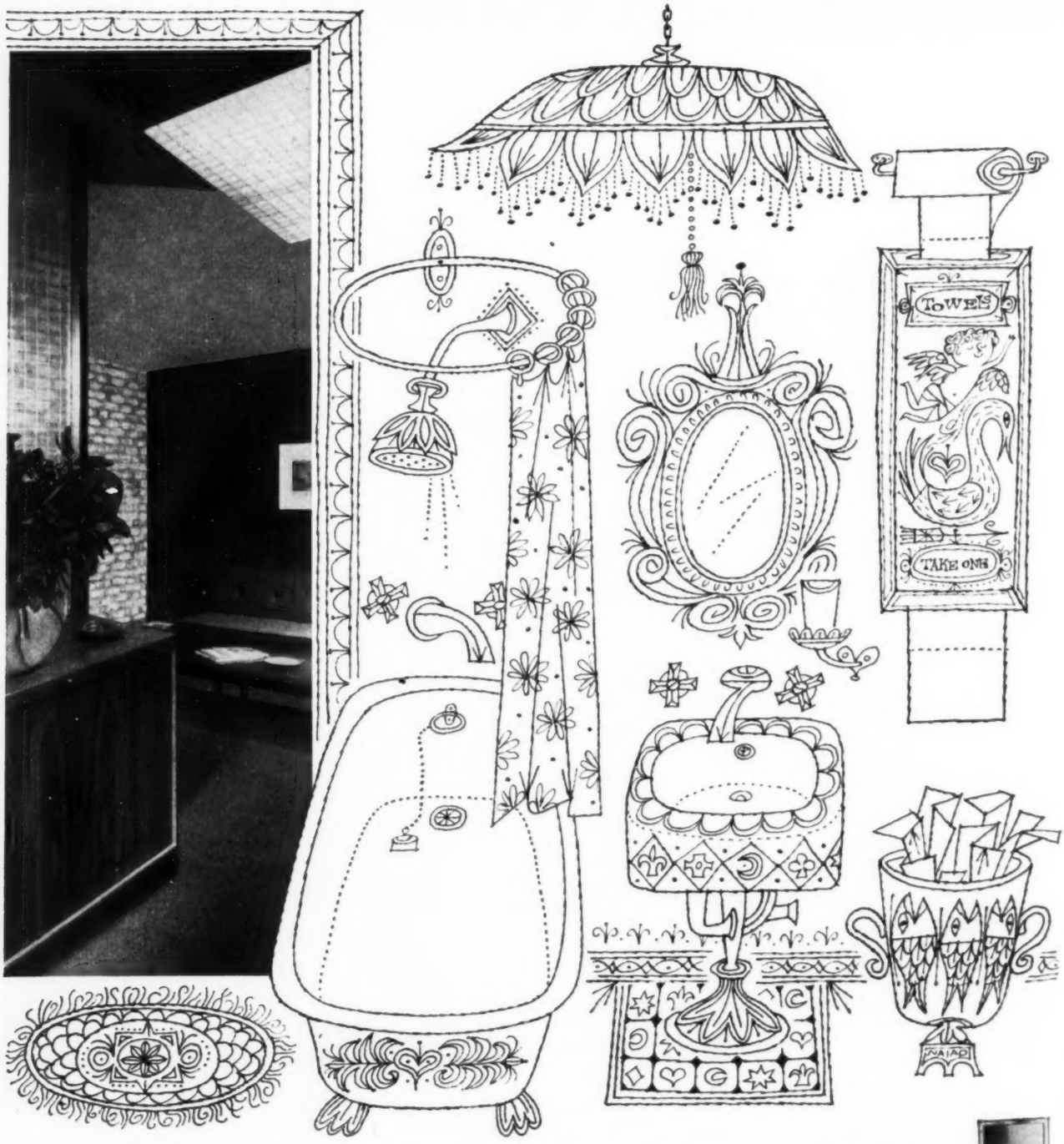


5. Make one peak joint assembly:



6. Measure and mark base lines on subfloor. Divide base as shown. Place jig blocks at each end:





MAKE IT ALL MODERN

—SPECIFY RECESSED SCOTT DESIGNED FIXTURES

Some old-fashioned washrooms may be quaint, but very few are practical. Seems to us that washrooms ought to be as modern as the rest of a building.

It has been our concern for a long time now to help you in planning functional washrooms. For example, we offer a number of ScotTissue Towel fixtures—recessed and otherwise—that can make life a lot easier for everybody.

We've printed a full-color booklet showing what we've learned over the years about washroom design. Send for your copy on your company's letterhead today.

Write *Scott Paper Company, Dept. AR-4, Chester, Pa.*

"ScotTissue," Reg. U. S. Pat. Off.

Scott No. 943 Recessed Towel Cabinet.

Scott No. 945 Recessed Towel Cabinet and Waste Receptacle.

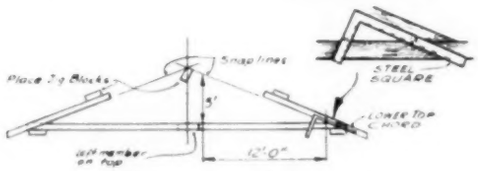
SCOTTISSUE TOWELS SYMBOL OF THE RIGHT KIND OF WASHROOM

SIMPLIFIED FRAMING METHODS—8: Trussed Rafters

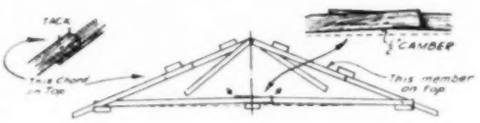
Presented through the cooperation of the National Association of Home Builders Research Institute

W Truss (continued)

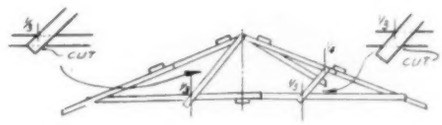
7. Place one heel assembly in jig. From inside corner at heel, measure 12′–0″ along base line. Erect perpendicular—measure 5′–0″. Snap chalk line from corner thru 5′ mark to center perpendicular line, to find lower point at peaks. Place other heel assembly—snap line to peak point already established. Place jig blocks against upper side of lower top chord. Place point of jig block and touching chalk line at peak:



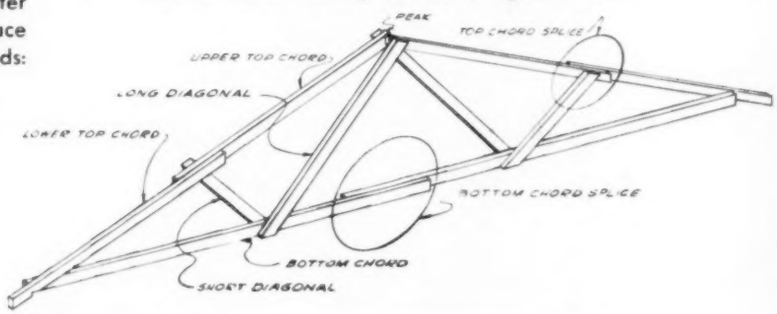
8. Place peak joint assembly with upper top chords firmly against blocks. Tack to hold temporarily in place. Place jig block at center of bottom chords allowing a ½″ camber. Place jig blocks near peak outside of upper top chords:



9. Swing left long diagonal until it intersects ⅓ span point. Mark necessary cut. Lay right short diagonal in place so that it intersects ¼ span point on top and ⅓ span at bottom:



10. Recheck alignment on all members. Be sure notches are firmly against all blocks. Disassemble the truss. Cut diagonals short of mark. Use disassembled members as patterns. Make up assemblies for heel joists and peak joints. Stack until ready for use. Use blocks and chalk lines as jig, to build all trusses as described above. Follow nailing schedule. Tighten bolts.

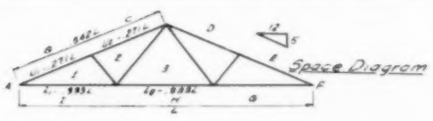


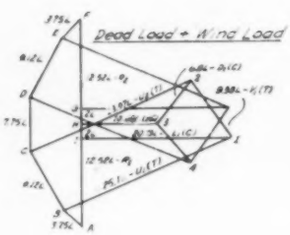
11. Nailing Schedule

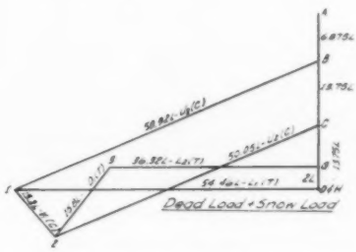
SPAN ↓	TOP CHORD SPLICE		SHORT DIAGONAL TO TOP & BOTTOM CHORD	
	NO ATTIC STORAGE	ATTIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE
20'8" or less	15-10d.	24-10d.	4-8d.	4-8d.
20'9"-22'8"	17-10d.	26-10d.	4-8d.	4-8d.
22'9"-24'8"	18-10d.	29-10d.	4-8d.	4-10d.
24'9"-26'8"	20-10d.	31-10d.	5-10d.	4-10d.
26'9"-28'8"	21-10d.	33-10d.	5-10d.	5-10d.
28'9"-30'8"	22-10d.	36-10d.	5-10d.	5-10d.
30'9"-32'8"	24-10d.	38-10d.	6-10d.	5-10d.

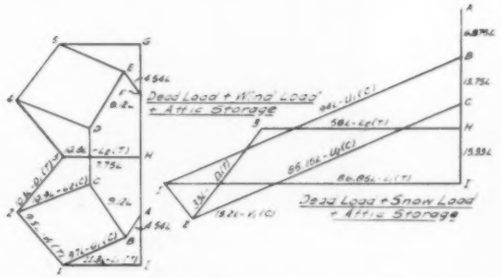
SPAN ↓	LONG DIAGONAL TO PEAK & BOTTOM CHORD (PLUS BOLT)		BOTTOM CHORD SPLICE	
	NO ATTIC STORAGE	ATTIC STORAGE	NO ATTIC STORAGE	ATTIC STORAGE
20'8" or less	4-8d.	8-8d.	10-10d.	15-10d.
20'9"-22'8"	4-8d.	9-8d.	10-10d.	16-10d.
22'9"-24'8"	5-8d.	10-10d.	11-10d.	18-10d.
24'9"-26'8"	5-10d.	11-10d.	12-10d.	19-10d.
26'9"-28'8"	5-10d.	12-10d.	13-10d.	21-10d.
28'9"-30'8"	5-10d.	13-10d.	14-10d.	22-10d.
30'8"-32'8"	6-10d.	14-10d.	15-10d.	23-10d.

Design Data









Lippincott & Margulies choose

The Purple Tree Cocktail Lounge, a new attraction in the Hotel Hamilton, Washington, D. C. On the floor—Bigelow's Empire-Saxony in a marbleized block pattern, green and gray shades.

Bigelow carpet for fashionable Hotel Hamilton

Drawing on his wide experience in the hotel field, Mr. W. P. Margulies, of Lippincott & Margulies, makes these comments concerning his use of Bigelow carpets:

"Hotel interiors are planned with the thought of providing attractive surroundings in a pleasant, quiet environment. Every interior should appear tasteful and charming to the thousands of guests visiting the hotels.

"In our experience, Bigelow carpets are not only attractive, but they hold up well under heavy traffic. From a design standpoint, they are available in a wide range of colors and textures.

"Patterns can be easily made to order by Bigelow, such as the marble square pattern we designed for the Purple Tree Cocktail Lounge in the Hotel Hamilton. Further, stock patterns can be re-colored, as they often are to suit our specifications.

"We are well pleased with Bigelow Carpet performance and appearance."

If you are planning an installation, consult Bigelow's carpet experts as early in your planning as possible.

Our trained specialists will help you find the right color, pattern and weave to suit your installation . . . at a price your client can afford.

Telephone your nearest Bigelow sales office today, (see listing below) for carpet samples or further information.

Walter P. Margulies of Lippincott & Margulies, Inc., New York. Mr. Margulies's firm is noted for work in many prominent hotels throughout the country, including: the Hamilton in Washington, D. C.; the Lincoln in Indianapolis; the Conrad Hilton in Chicago; the Ten Eyck in Albany; the Seneca in Rochester; and the Taft in New York.

SINCE 1825
BIGELOW
Rugs - Carpets

BIGELOW Rugs and Carpets

Beauty you can see . . . quality you can trust . . . since 1825

Bigelow sales offices are located in the following strategic cities: Atlanta, Ga.; Baltimore, Md.; Boston, Mass.; Buffalo, N. Y.; Chicago, Ill.; Cincinnati, Ohio; Cleveland, Ohio; Columbus, Ohio; Dallas, Tex.; Denver, Col.; Detroit, Mich.; Hartford, Conn.; High Point, N. C.; Indianapolis, Ind.; Kansas City, Mo.; Los Angeles, Calif.; Milwaukee, Wisc.; Minneapolis, Minn.; New York, N. Y.; Philadelphia, Penna.; Pittsburgh, Penna.; St. Louis, Mo.; Salt Lake City, Utah; San Francisco, Calif.; Seattle, Wash.

A-E PRODUCTS

(*Continued from page 211*)

NEW PORCELAIN FINISH

This new procelain enamel coating has a full matte, acid resisting finish designed to meet a long-time need of architects and builders. It is available now and is being offered primarily to fulfill an important need in architectural curtain wall construction. Reportedly, the finish can be used on all types of structures and fills a special need in the field of monumental building construction.

Enamel Acid Resistant Finish

Semi-matte or glossy porcelain enamel finishes repel acid attack due to the basic frit formula used. The problem in developing the new coating involved a deficiency in the chemical properties of one frit used to produce a full matte finish. Normally, acid resistance has been somewhat related to glass; now, full matte, or "dead matte," as it is sometimes termed, can be obtained with higher acid resistance than is normally called for in architectural porcelain panels. A wide color range is available in many pastel shades. *Beltinger Corp., Waltham, Mass.*

PROTECTED METAL ROOF DECK

Plasteel Roof Deck was developed with a built-in vapor barrier that reportedly will permanently resist corrosive influences and high humidity conditions. Manufactured by a process combining the structural strength of steel with three protective coatings: a bond coat, a weather-sealed asphaltic plastic coating; and a pure mineral mica topping, it has an application in almost every field of industry. The manufacturers especially recommend it for in-

(*Continued on page 223*)

AE PRODUCTS

(*Continued from page 222*)

stallation on paper mills, chemical plants and other buildings where corrosion and high humidity conditions prevail.

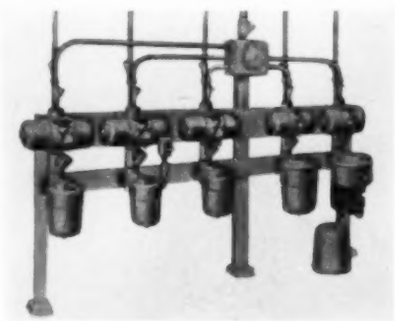
In additions to the built-in vapor barrier which eliminates additional layers of felt and tar under the installation, Plasteel has a sound absorbent surface that reduces reverbant noises and also eliminates field painting by the factory coating of asphaltic-plastic with a mica surface.

Plasteel Roof Deck Panels are 24 in. wide with telescoping ends that provide nesting of end laps and give a smooth unbroken roof surface. The mica coating on both sides provides light reflectivity and an attractive appearance to the underside of the deck. The asphaltic-plastic coating into which the pure mica is embedded under heat actually seals itself at all joints and will eliminate the need for maintenance and periodic painting. *Plasteel Products Corp., Washington, Penn.*

NEW MOTOR AND LINE STARTER

A complete new line of explosion-proof, dust-tight, rain-tight circuit breaker, motor starter and line starter combination enclosures, *Unilet*, has been announced by the *Appleton Electric Co.*

Each component *Unilet* for circuit breaker, motor starter and seal possesses full seven-thread engagement at the coupling joints as well as on the bolt-free covers. Absolutely safe entrance

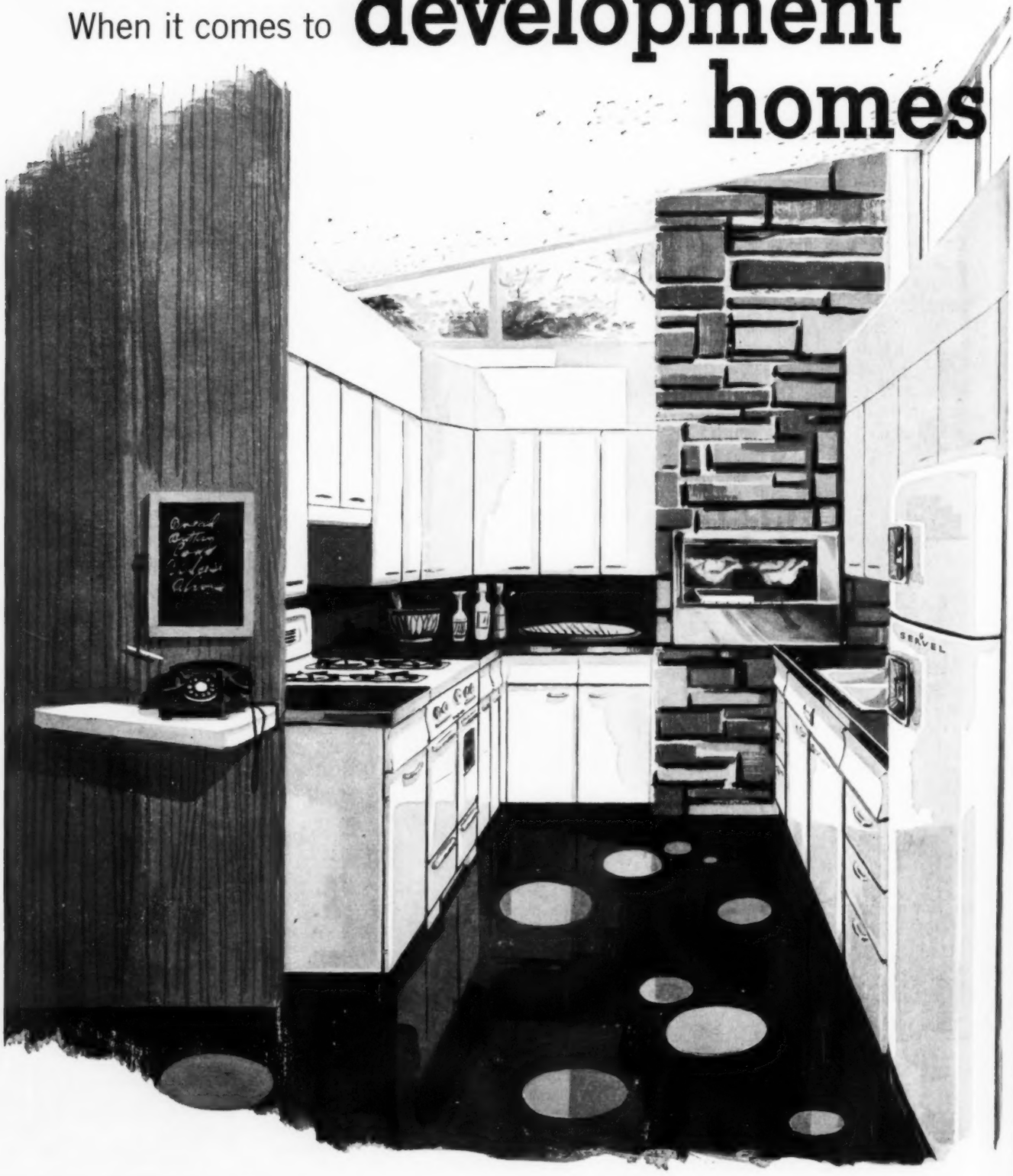


Explosion Proof Motor Starters

to individual motor starters for maintenance work is claimed for both single and banked combinations in hazardous areas without shutting off other branch circuits. No "live" circuit breaker wires

(*Continued on page 226*)

When it comes to **development homes**



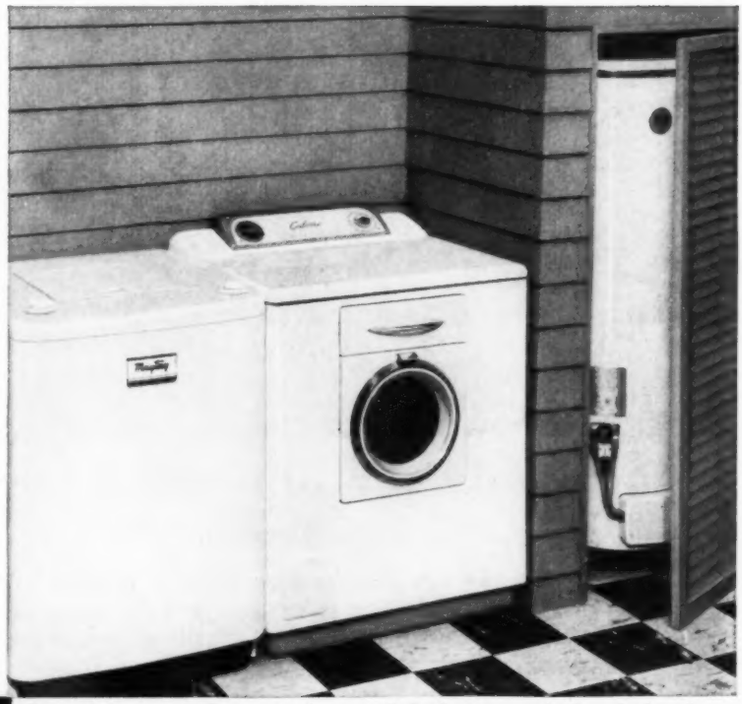
On three grounds – price, performance and appearance – Gas appliances belong in your development homes. They cost you less to install (and cost your purchasers less to use them). They operate more efficiently because Gas is both flexible and instantaneous. And they sell on sight! For the new Gas ranges are so automatic they cook whole meals all by themselves. The new Gas refrigerators are so automatic they feed ice cubes into a basket all by themselves. You can talk about, boast about, even write ads about your all automatic Gas kitchens. They're the plus that can turn prospects into buyers and buyers into happy home owners. And they make your own margin of profit that much bigger.

. . . nothing makes as much sense as Gas

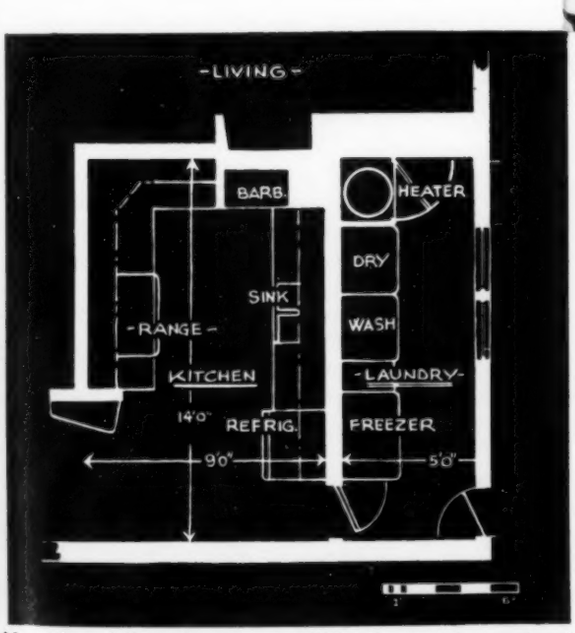
This New Freedom Gas Kitchen* features an automatic Gas range, made to "CP" standards by the **Hardwick** company.

Royal Wood cabinets by the **Mengel Co.**

Kitchens sell homes, and this **Servel** Gas refrigerator certainly helps sell a kitchen. It puts ice in a basket automatically, does away with messy trays. Few women (and not a man in the world) can resist it—or the home that has it.



Bryant automatic Gas water-heater: **Caloric** automatic Gas clothes dryer.



The Gas clothes dryer is another extra that frequently clinches a sale. Most development home purchasers have heard of it, read about it, dreamed about it, but few ever thought it would really be theirs. (If you're considering any dryer but Gas, just remember that professional laundries prefer Gas dryers 30-1.)
The Gas water-heater is demonstrably superior. Not only does it cost less to install and use, but a 30-gallon tank actually delivers more hot water than an 80-gallon tank run by any other all-automatic fuel. Gas—dependable, efficient Gas—is 3 times faster.

AMERICAN GAS ASSOCIATION

Your local Gas company will be happy to work with you on any problem.

Only Gas costs so little to install and operate

GAS—the modern fuel for automatic cooking . . . refrigeration . . . water-heating . . . house-heating . . . air-conditioning . . . clothes-drying . . . incineration.

*Reg. A. G. A.

AE PRODUCTS

(*Continued from page 223*)

are exposed while the motor starter enclosure is open on a line starter combination. According to the manufacturer there is no unnecessary "down time" on machines and equipment when *Unilet* units are installed.

Other features include: U. L. approval on banked circuit breaker *Unilets* up to groups of three for Forms 1 and 2;

lightweight construction for easy installation without the use of heavy lift equipment; standardized mounting frames for interchangeability of most well-known makes of circuit breakers and motor starters in certain sizes; simplified "straight-thru" wiring; versatile hub adaptors which permit use of over-size conduit and conductors; and streamlined push-button and pilot-duty control.

This new Appleton Unilet line covers all breaker-starter control equipment of leading firms rated to 225-ampere breaker loads and to 100 H.P. on 3-phase induction motors at 600 volt max. *Appleton Electric Co., 1701–59 Wellington Ave., Chicago 13, Ill.*

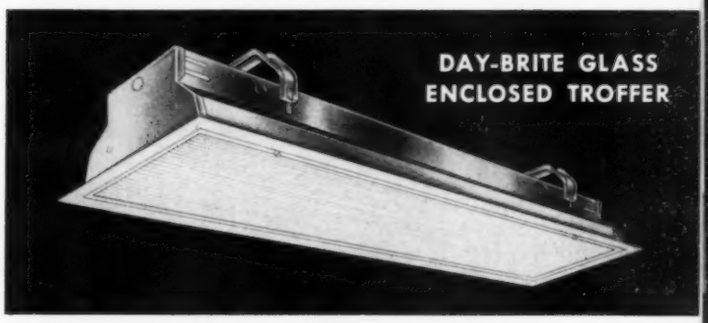
SUMMER AIR CONDITIONER

A new Summer Air Conditioner, model SAC, which is sized and finished to match the FES and FEC Series winter heating units by Janitrol, is announced by Surface Combustion Corporation of Toledo. The manufacturers claim several features, including a quiet compressor operation, especially desirable in residential and certain commercial installations. This quietness is further achieved by use of thick fiber glass acoustical and thermal insulation which protects the unit from extreme heat while adding to the sound deadening features.

Three models are offered in the summer air conditioner line. The five-ton capacity unit is a combination of the two and three-ton capacity models. All are housed in the Janitrol blue-gray finish steel casing no larger than the average refrigerator. Standard equipment includes a resilient mounted centrifugal fan, driven by a 230-volt 60 cycle single phase continuous duty motor. The mo-

(*Continued on page 230*)

A partial view of the attractive Parker Pen Arrow Park plant area. Covering 200,000 square feet, this huge working space looks like anything but a factory. *Twenty-four hundred 8-ft. Day-Brite glass enclosed troffers provide 55 footcandles of glare-free light for every plant operation.* This is believed to be a more extensive use of recessed troffer lighting in an acoustical grid type suspended ceiling than in any other plant in the nation.



We do not suggest that troffer lighting is the *only* way to achieve vision-saving levels of comfortable plant illumination. Circumstances will often dictate the choice of fixtures designed specifically for industrial use—such as Day-Brite's CFI Day-Line® with 10% upward component.

Rather, we present the Parker Pen installation as evidence of the trend among leading architects and engineers—*and their clients*—toward more and more emphasis on *maximum quality* lighting.

It is significant that the demand for Day-Brite fixtures has grown with this trend.

You need only to inspect and handle a Day-Brite fixture yourself to know the reason why. You can *feel* the value... *feel* the quality that makes Day-Brite the best buy on the market. Look at Day-Brite... *feel* the difference... before you specify.

Day-Brite Lighting, Inc., 5465 Bulwer Ave., St. Louis 7, Mo. In Canada: Amalgamated Electric Corp., Ltd., Toronto 6, Ontario.

CALL OR WRITE YOUR NEAREST DAY-BRITE REPRESENTATIVE

425

FEEL THE DIFFERENCE . . . "DECIDEDLY BETTER" DAY-BRITE *Lighting Fixtures* **BEFORE YOU SPECIFY!**

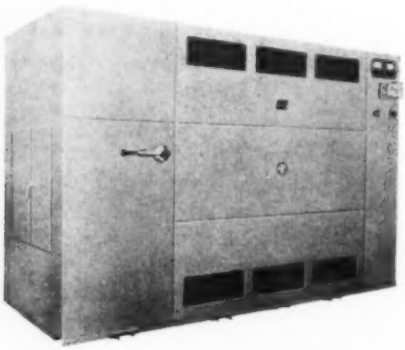
A-E PRODUCTS

(*Continued from page 226*)

tor has overload protection. The fan sends cooling air through the same ducts as used by the winter air conditioning unit. The finger tip control damper on the adjoining Win-Sum Twins is interconnected so that the twin unit will not operate when one is already in use. The hermetically-sealed warranteed compressor is driven by a direct connected, integral horsepower motor. The unit has a water-cooled condenser and the refrigerant is controlled by a twin-apillary tube restrictor. *Janitrol Division, Surface Combustion Corporation, Columbus 16, Ohio.*

TRANSFORMER

Marcus 2000KVA Transformer — Unit Load Center features built-in automatic forced draft equipment to increase capacity under overload conditions. It is rated: primary 4800.60 cycles, 3 phase; secondary 480 volts. The unit comes complete with fused load break air switch on primary, and secondary metering and pull section, primary switch



Transformer Used Under Overload

handle and access door interlocked for safety. All Marcus transformers have class B hi-dielectric, hi-heat magnet wire insulated with Johns-Manville Quinterra and Dupont's "Mylar" polyester film which reportedly affords greater puncture strength. *Marcus Transformer Co., Hillside, N. J.*

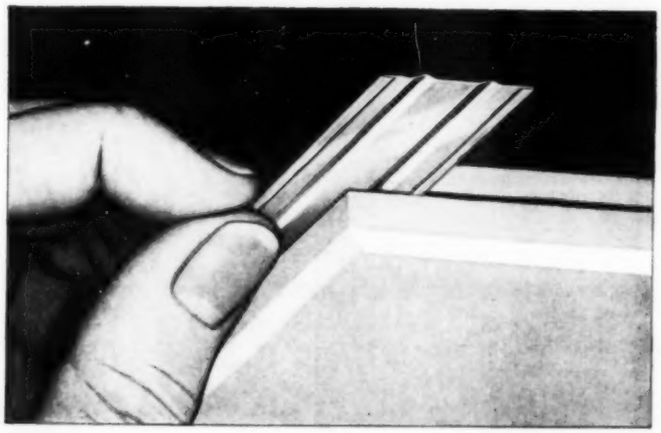
TRANSLUCENT PLASTIC PANELS

These strong and colorful panels, which can be used for many things from patio roofs to walls and windows, are made in four pastel colors and white. Each color

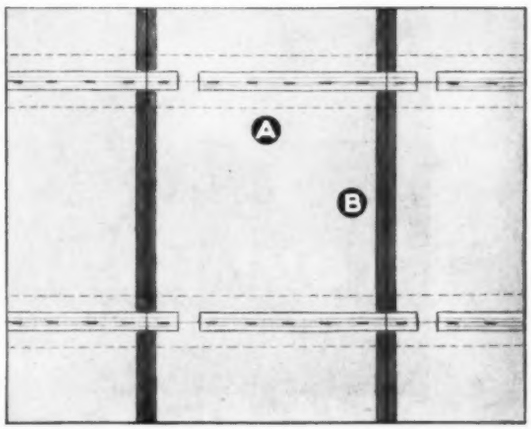
(*Continued on page 234*)

EW FIBERGLAS* INSTALLATION METHOD

gives non-combustible acoustical ceilings at the low cost of ordinary tile nailed or screwed to wood furring



❶ Aluminum spline is inserted in kerfed edge of Fiberglas Acoustical Tile, 24" x 24" x ¾".



❸ Supporting splines (A) are parallel to furring, and continue through tile joints. Fiber cross splines (B) are used for leveling. They are not stapled, making installation still more economical.

❷ Modified hand or air tacker with special attachment holds spline away from furring strip, drives 9/16" staples flush with face of spline, and into furring strip. Staples do not pierce tile!

OWENS-CORNING FIBERGLAS

SOUND CONTROL PRODUCTS

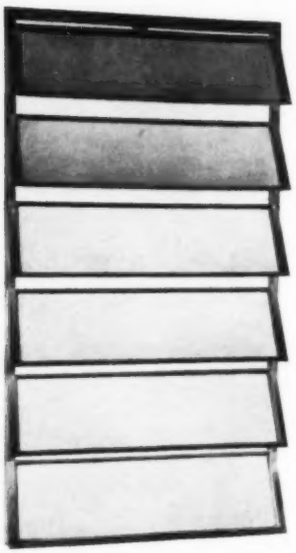
FIBERGLAS TEXTURED, PERFORATED, SONOFACED* & STRIA ACOUSTICAL TILE. FIBERGLAS TEXTURED & SONOFACED CEILING BOARD. FIBERGLAS SONOCOR* PADS FOR METAL PANS. FIBERGLAS NOISE-STOP BAFFLES.

**Fiberglas, Sonofaced (Reg. U. S. Pat. Off.), Sonocor and Noise-Stop are trademarks of Owens-Corning Fiberglas Corporation.*

A-E PRODUCTS

(*Continued from page 230*)

has six degrees of density. The result is a series of panels which are virtually identical in color but have a range of light transmission from a low of 10 per cent to a high of 60 per cent. An architect can tailor the amount of light coming into a room by specifying one grade of density for a southern exposure and another grade for a northern exposure. But the color of both grades of panels will be identical when viewed in reflected light. These *Gradation Panels* are also structurally strong and easily used in building since they can be cut with a handsaw, nailed, screwed, riveted or puttied in place. They are constructed from Vibrin, a polyester resin produced by the Naugaruck Chemical Div., United States Rubber Co., and the fibrous glass made by the Ferro Corp.



Gradation Panels

This combination won't rust, rot, warp, swell or dent and is stronger than steel on a pound for pound basis. Closely controlled amounts of pigment and a densifying agent to get the grades of density in each color range also are added. Other uses for the panels are carports, wind deflectors, garage door panels, doors, displays, skylights, greenhouses, illuminated signs, etc. There are two standard sizes, 4 by 8 ft and 4 by 9 ft. There are three thicknesses, $\frac{1}{16}$, $\frac{3}{32}$ and $\frac{1}{8}$ of an in. *Russell Reinforced Plastics Corp., Lindenhurst, N. Y.*

(*Continued on page 238*)

Houses the first month!

THE REASON ?

Alexander Caplan's model home in Chatham Township, New Jersey was a G-E "Young America" House—erected by the builder from basic plans supplied by the Home Bureau of General Electric. The G-E Kitchen-Laundry particularly delighted prospects.

IT WILL PAY you to investigate how helpful General Electric's Home Bureau can be in this new era of tougher selling—just as it has been to Mr. Caplan and other successful builders throughout the country. Today people are getting mighty choosy and want more for their money.

Just completed are specifications for 4 new "Young America" Model Homes which contain features prospects want most in their new homes . . . features *they can afford.*

Outstanding among the "want-most" features is the attractive General Electric Kitchen-Laundry.

The value of these dependable appliances can usually be included right in the regular mortgage, *and the monthly cost to the home owner is usually no more than that for a typical telephone bill.*

Builders in scores of cities are reporting phenomenal sales results of General Electric "Young America" Houses. Why don't you get all the facts through your General Electric distributor today?

Home Bureau, General Electric Company, Appliance Park, Louisville, Kentucky.

New G-E Room Air Conditioners at low per-unit cost! Models are easily installed. No plumbing required.

You can put your confidence in—

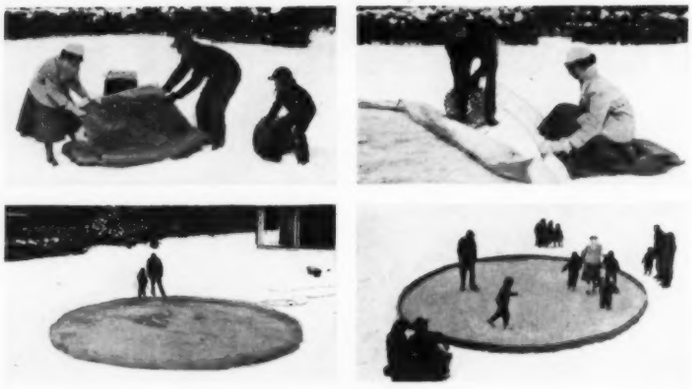
GENERAL ELECTRIC

AE PRODUCTS

(*Continued from page 234*)

PORTABLE SKATING RINK

A new, portable ice skating rink, weighing about 60 lbs for a diam. of 24 ft, quickly and easily converts a backyard, garden or lawn into a safe ice skating site for family and neighborhood. This skating rink is made of *Krene*, a product of the Bakelite Co., a division of Union Carbide and Carbon Corp. It takes only a few minutes to set up and is easily disassembled for folding into a compact package to store.



Assembling skating rink

Location for the rink is a reasonably level piece of ground, where the liner of *Krene* is unfolded and stretched over the ground (top left photo). Next the low fence is placed in position (top right photo) and then the flexible side wall of the liner is placed over the fence. The rink is then ready for filling with as little as two or three in. of water (bottom left photo) and, with the aid of cold weather, a safe ice skating rink is had. This new type skating rink is available in various sizes, including the standard 24 ft circular rink, shown, which costs $100. *Bilnor Corp., 300 Morgan Ave., Brooklyn 11, N. Y.*

FOLDING DOORS

A new product for space saving or room dividing has been manufactured by Extendoor Inc. *Extendoor with Extendible X*, a mechanism producing true pantograph action which controls the movement of the door at both the top and bottom resulting in uniform folds, is reportedly effortless to operate. The full length vertical panels give a permanent backing to the fabric folds, which are specially treated to prevent rust or mildew.

According to the manufacturer, these panels act as a sound trap, retarding normal noises, such as applause in an adjoining room, from bouncing back or penetrating through. The doors come in opening heights of 6 ft 8½ in. with opening widths from 2 ft 6 in. and 8 ft with opening widths from 7¼ in. to 20½ in.

Extendoor offers a wide range and variety of Viertex V.E.F. fabrics, colors and textures. *Extendoor, Inc., Muskegon, Mich.*

(*Continued on page 242*)

(*Continued from page 238*)

DRAFTING TOOLS

• A new model device that reportedly combines the functions of T-square, triangles, straightedge, scales and protractor, or drafting machine, in one unit without adjustments or additional parts, Paraline weighs less than 4 oz. It may be used on any flat surface or to speed up detail work on very large drawings where drafting machine or T-square are used on the drawing board. Angles and tangents are projected by aligning the transparent protractor anywhere along the base line and rolling the instrument until the straight edge intersects the base line at the point at which the angle is to be drawn. Parallels are scaled without raising the device. The new *Professional Model Paraline* is 12½ by 3½ in. and is available with either architect's or engineer's scales at $5.50. The *Standard Model Paraline* measures 10½ by 3 3/16 in., is available with Architect's scale at $3.95. *Pickett & Eckel, Inc., 5 So. Wabash Ave., Chicago 3, Ill.*

• A portable drawing board molded of clear polystyrene plastic weighs less than 8 oz and will fit into a briefcase. According to the manufacturer four corner clamps for attaching 8½- by 11-in. paper assure smooth handling of the working sheet without use of thumbtacks or scotch tape. The clamps are recessed into the plastic so that a triangle or ruler can ride freely over them without interference. Two metal straightedges, horizontal and vertical are retractable to facilitate precision work without use of a T-square. Tension clamps on the under side of the board provide storage for triangles. The board measures 9¾ by 12¼ in., can be used for tracing and shadow box work and retails for $3.95. *The Graphostat Co., 110 Eaton Pl., East Orange, N. J.*

Lightweight portable drawing board

• A new precision drawing instrument, now available to the export market reportedly enables a person with little previous knowledge or experience of drawing to make sketches, plans or other outlines rapidly and accurately to scale. The appliance consists of a light rigid board contained in a leather folder, 14 in. square, to which is attached a plastic pantograph with a template so shaped as to enable lines to be ruled horizontally, vertically and all principal angles, including those required for isometric or perspective drawing. The template is also cut to produce varying angles, triangles and rectangles with gradations in inches and millimeters and circles from ⅛ in. to 1 in. diameter. Although this instrument reportedly can be used for a wide range of work without additional instruments, compasses, set squares, and protractors can be used in conjunction with the appliance. Price of $11.50 includes postage, packing and insurance. *Quikdraw Co., Ltd., 127 Gunnersbury Ave., London, W.3, England.*

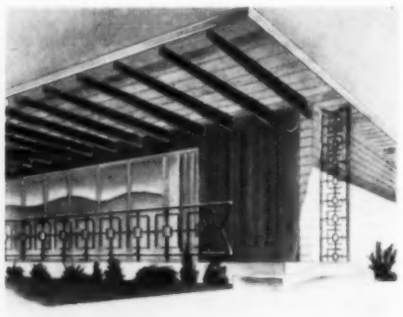
(*Continued on page 246*)

AE PRODUCTS

(*Continued from page 242*)

ORNAMENTAL RAILINGS, COLUMNS

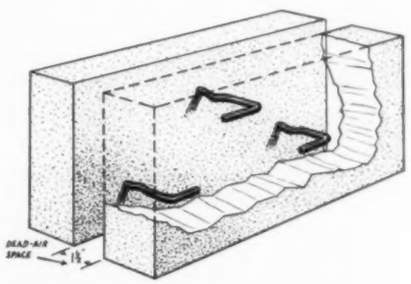
Kleesons, Inc., offer seven contemporary designs in ornamental iron and aluminum. Produced in pre-drilled units, easily assembled, the line was designed for ornamental work to harmonize with contemporary buildings and dwellings. *Kleesons, Inc., 500 W. Main St., Robertsville, Ohio.*



New railings in contemporary design

CONCRETE BUILDING BLOCKS

Twin-Sul Block consists of two separate, light-weight concrete blocks joined together by three galvanized ¼-in. diameter steel rods, which provides a cavity wall in one operation. The manufacturer claims that the bricks are moisture proof and, due to the dead-air space, insulated. Because of the dry surface, it is possible to plaster directly to the wall.



Double block gives dead air space

The blocks are 8 by 8 by 16 in., each 3⅛ by 7⅝ by 15⅝ in. *Twin-Sul Block Co., 137 E. 29 St., New York, N. Y.*

(*Continued on page 247*)

AE PRODUCTS

(*Continued from page 246*)

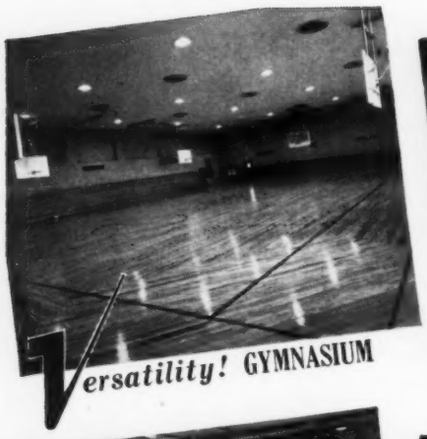
NEW SHOWROOM FOR FURNITURE COLLECTION

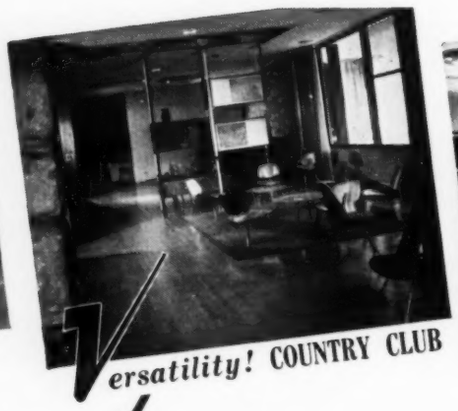
The Continental American Collection of furniture, designed by E. J. Spence for Industria Mueblera of Mexico, is now being housed in new, larger quarters. The showroom, designed by Fred Wuntch, occupies 3500 sq ft of space, and is so arranged to provide individual room settings for the various furniture items. The furniture collection, having grown from 32 pieces when first introduced in June 1952 to the present 110

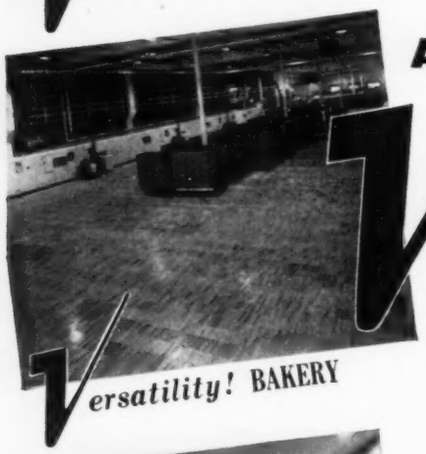
New furniture line features fine materials, Mexican handicrafts

pieces, consists of living, dining and bedroom furniture in a variety of lamp, cocktail, corner and coffee tables, nests of tables, dining tables, beds, chests, double and triple dressers, cabinets, breakfronts, chairs, etc. The furniture, all made of solid mahogany, is available in several finishes which include, mellow briar, honey amber, Rosa Morada, mother of pearl, ebony and teak. Some of the items are trimmed with solid

(*Continued on page 251*)



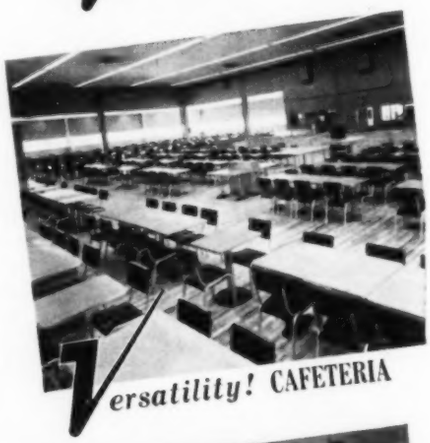


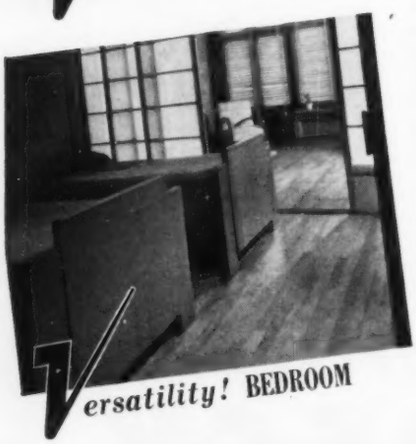


ALL FLOORED with

Versatile!

NORTHERN HARD MAPLE





Neither science nor Nature herself has yet produced a flooring material that serves so many varying needs so well and so long as *resilient* Northern Hard Maple. Here are nine typical areas where maple is a normal, and eminently sound, specification. There are a great many others. Produced in strip, block and patterned designs, under strict **MFMA** grading and dimension regulations, and properly laid, maple serves for years with simple, routine maintenance. It's tough —asks no babying. It's bright, smooth, tight, crevice- and splinter-free. Specify it with the confidence it has earned so well. See Sweet's Arch. 12k-MA, or write for AIA full-color File Folder.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 550, Pure Oil Building
Chicago 1, Illinois

FLOOR WITH *NORTHERN* HARD MAPLE
BEECH AND BIRCH

AEH PRODUCTS

(*Continued from page 247*)

Mexican silver, and palm leaves have been intricately woven for use in some of the cabinets, and chairs. Marble, onyx and Mexican mosaics are used as table tops, and some of the chairs have been upholstered in choice hides, carefully tanned and cut, and laced on the backs and seats. *Industria Mueblera, 1218 Second Ave., New York, N. Y.*

PLYWOOD BUILDING PANEL

Douglas Fir Plywood Association announce the manufacture of plywood panel material suggested for siding of homes and buildings, gable ends, soffits and breezeways, and for interior effects. The panels, known as Texture One-Eleven, are unsanded, C-quality Douglas fir veneer, manufactured with 100 per cent waterproof glue, permit tight knots up to $1\frac{1}{2}$ in.; knot holes up to 1 in.; and splits up to $\frac{1}{3}$ in. The faces are free from patches and tape.

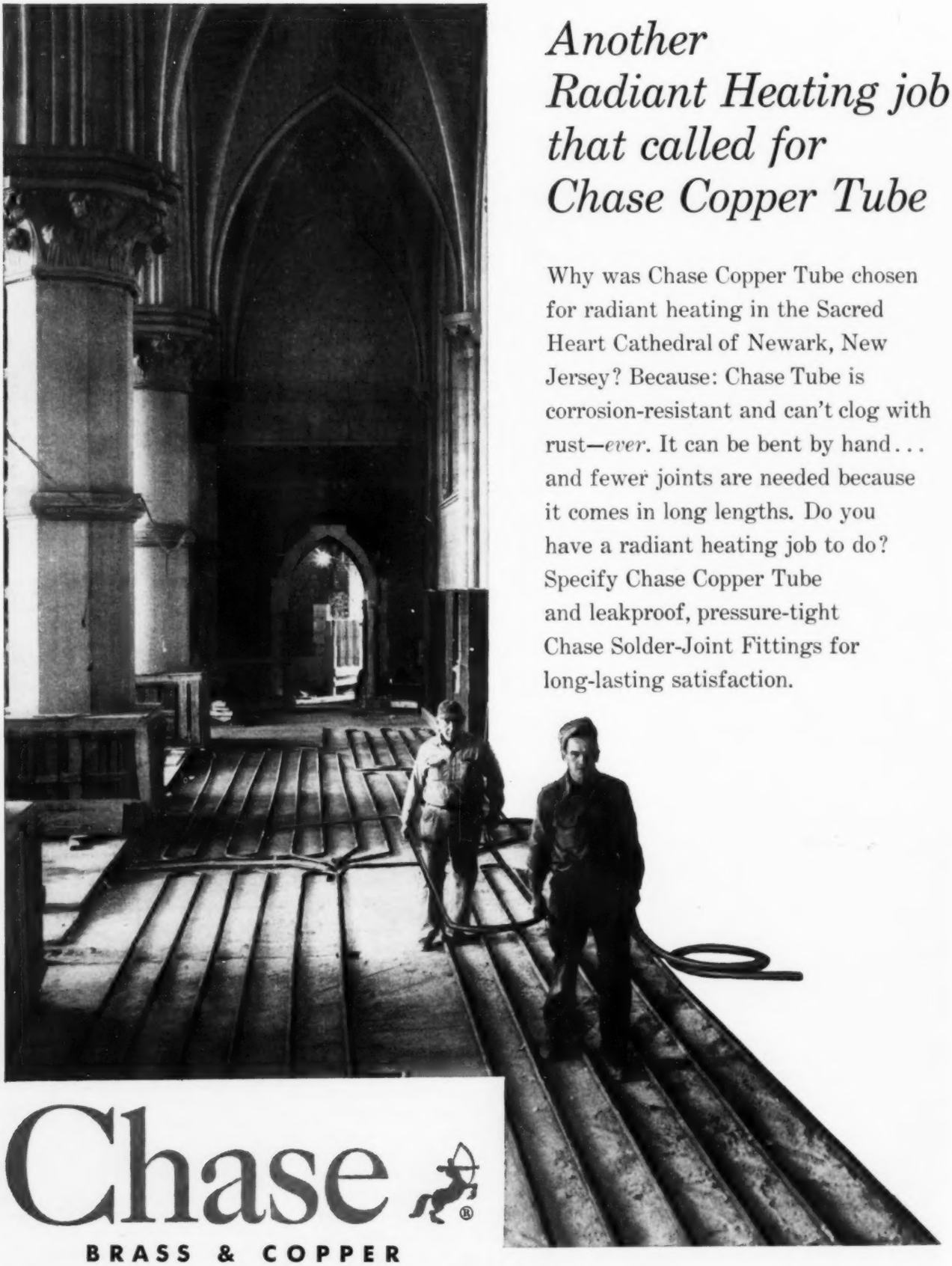
The panels come in two patterns 16/2 and 32/4. The 16/2 pattern is of panels 16 in. wide net ($16\frac{3}{8}$ in. over all) with grooves four in. o.c. The 32/4 pattern is of panels 32 in. wide net ($32\frac{3}{8}$ in. overall) with grooves 4 in. o.c. Grooves are $\frac{3}{8}$ in. wide and $\frac{1}{4}$ in. deep. All panels are rabbeted both edges to provide hidden joints (shiplap) and make another groove at each joint. Rabbet is $\frac{5}{16}$ in. deep, width of rabbet on face side is $\frac{3}{4}$ in. and on reverse side $\frac{3}{8}$ in. The panels are also available in a 16-in. size with grooves 4 in. o.c., and 32-in. panels with grooves 2 in. o.c. They come in lengths of 96 in. and 120 in. Shorter lengths are also available.

The manufacturer recommends that Texture One-Eleven be stained rather than painted. *Douglas Fir Plywood Association, Tacoma 2, Wash.*

HIGH FIDELITY WALL CABINET

Recently designed by Florence Knoll, a new cabinet to house a high fidelity radio tuner, amplifier and three-speed automatic player has the same dimensions as other standard *Knoll* cabinets. Finished in birch with pull-out doors on one side, and grass cloth covering the speaker unit on the other side, the cabinet measures 72 by 15 by 18-in. high, and has been designed for attachment to the wall. The speaker enclosure is reported to insure good sound reproduc-

(*Continued on page 254*)



Another Radiant Heating job that called for Chase Copper Tube

Why was Chase Copper Tube chosen for radiant heating in the Sacred Heart Cathedral of Newark, New Jersey? Because: Chase Tube is corrosion-resistant and can't clog with rust—*ever*. It can be bent by hand... and fewer joints are needed because it comes in long lengths. Do you have a radiant heating job to do? Specify Chase Copper Tube and leakproof, pressure-tight Chase Solder-Joint Fittings for long-lasting satisfaction.

Chase ®

BRASS & COPPER

WATERBURY 20, CONNECTICUT • SUBSIDIARY OF KENNECOTT COPPER CORPORATION

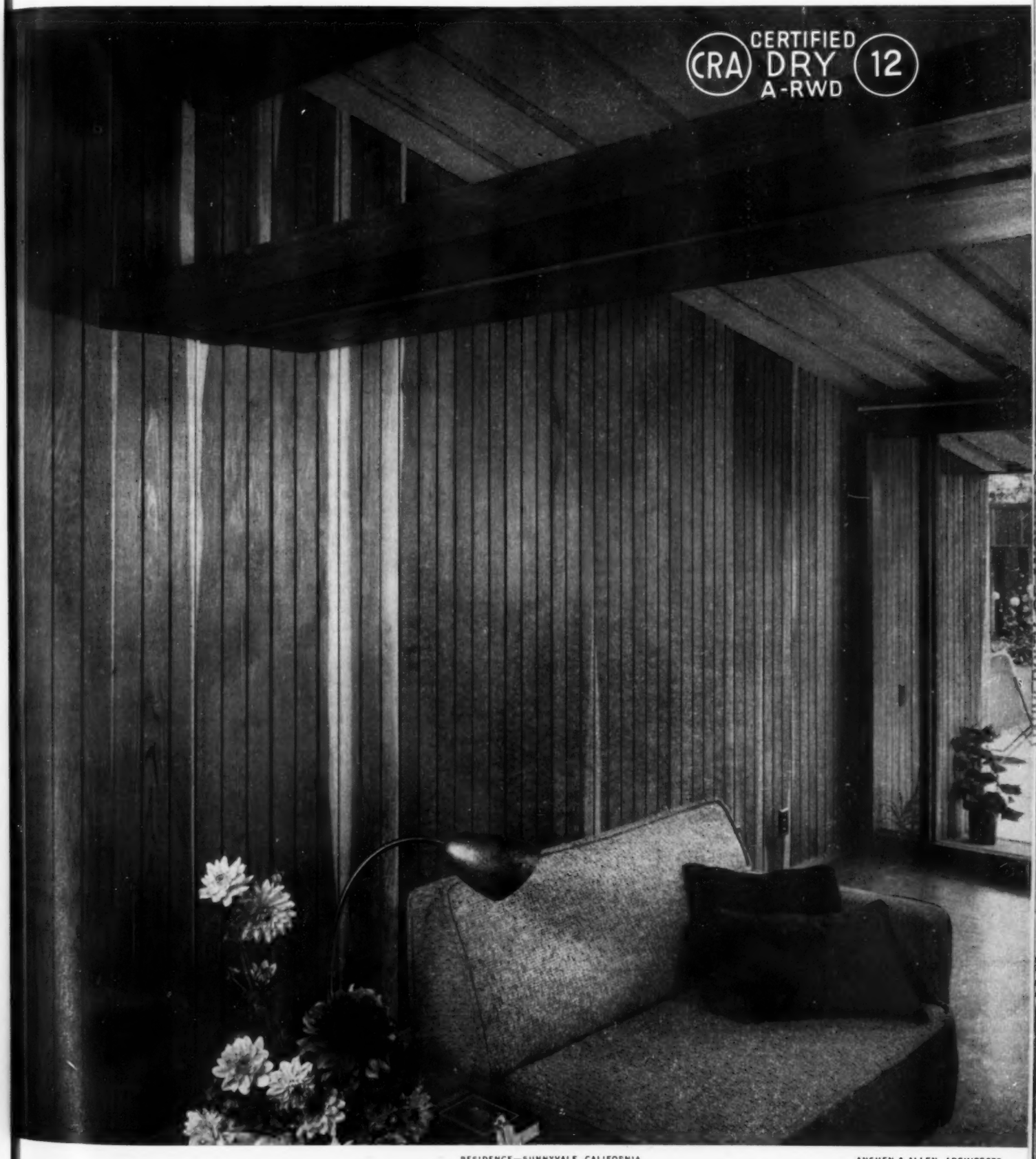
The Nation's Headquarters for Brass & Copper

Albany†	Chicago	Denver†	Kansas City, Mo.	Newark	Pittsburgh	San Francisco
Atlanta	Cincinnati	Detroit	Los Angeles	New Orleans	Providence	Seattle
Baltimore	Cleveland	Houston	Milwaukee	New York	Rochester†	Waterbury
Boston	Dallas	Indianapolis	Minneapolis	Philadelphia	St. Louis	(†sales office only)

for graceful grain patterns... CRA redwood

Whether you want the striking two-tone effects of A Grade (shown here) or the uniform beauty of Clear All Heart, you're sure of complete satisfaction when you specify grade-marked, trade-marked CRA Redwood — graded, milled and seasoned to uniform standards of quality.

CALIFORNIA **REDWOOD** ASSOCIATION • 576 Sacramento Street, San Francisco 11



RESIDENCE—SUNNYVALE, CALIFORNIA

ANSHEN & ALLEN, ARCHITECTS

CALIFORNIA **REDWOOD** ASSOCIATION **CRA**

CRA members: Wolf Creek Timber Co., Inc • Arcata Redwood Co • Coastal Plywood & Timber Co • Eureka Redwood Lumber Co • Hammond Lumber Co • Holmes Eureka Lumber Co • Hulbert & Muffly Lumber Mill • M & M Wood Working Co • Northern Redwood Lumber Co • The Pacific Coast Co • Pacific Lumber Co • Rockport Redwood Co • Simpson Logging Co • Union Lumber Co • Warm Springs Redwood Co • Willits Redwood Products Co

AEH PRODUCTS

(Continued from page 251)

New stock cabinet for Hi-Fi

tion. *Knoll Associates, Inc., 575 Madison Ave., New York, N. Y.* (Also available through Knoll's Detroit showroom.)

BURNER CONTROL

A new *Fireye Programming Control* for commercial-industrial gas, oil, or combination gas oil burners is said to be the first to provide complete protection against costly flame failure explosions, together with programming to meet any application requirement. Employing a flame-sensitive "Firetron" Cell, it shuts off fuel in 2 to 4 seconds after a burner flame goes out, helping to eliminate explosion hazards. The control offers simplified specification, installation and maintenance by providing a single standard "package" unit with complete automatic startup, operating, and shutdown control for any type of burner, and a selection of programming times for three types of ignition operation which complies with Factory Mutual Laboratories requirements. Its circuit prevents operation under any unsafe condition, and a plug-in chassis provides maximum accessibility and ease of installation. The control is described as rugged in design, and is built to withstand vibration and give continuous performance under the most adverse industrial conditions. *Combustion Control Corp., Dept. N, 718 Beacon St., Boston 15, Mass.*

NEW ROOM DIVIDERS

A new idea in room dividers, composed of three parallel vertical louvers held in place by separate tubular rods which extend from ceiling to floor, *Divyd-Elle* panels may be turned to any angle desired or closed to form a continuous panel divider. It is equally adaptable for dining room area, dining "L", foyer, or recreation rooms. Three models have

(Continued on page 258)

You might have written THIS ADVERTISEMENT

We know that every architect is completely familiar with the superiority of **cast iron soil pipe.** We know, too, that it takes plenty of proof of this superiority to convince your clients.

Reproduced here is one of the Institute's 1954 series of advertisements appearing in national consumer magazines. Through this campaign, the Institute is backing up those architects who are doing such constructive work in the interest of better sanitation.

ROOTS AREN'T YOUR ONLY SEWER PROBLEM!

An elephant down the drain? Ask any mother. It CAN happen. And if it does, and your house sewer clogs, what then? The whole sanitary service goes out of business. If your plumber has to use a cleaning rod, will the pipe material stand the rodding? Look at the picture in the center. That's an actual photograph of the hole found in non-metallic sewer pipe that failed. Fortunately there is ONE material that resists roots *AND* withstands rodding in the pipe fittings and in the durable, lead-caulked joints. That's why we say, *always*

USE PERMANENT CAST IRON SOIL PIPE AND FITTINGS

The Mark of Quality and Permanence

CAST IRON SOIL PIPE INSTITUTE

1627 K Street, N.W., Washington 6, D. C. Dept.BHG-2

Please send me: ☐ Folder about Plumbing Drainage.
☐ Our Woman's Club is interested in seeing your movie "Permanent Investment."

Name_____

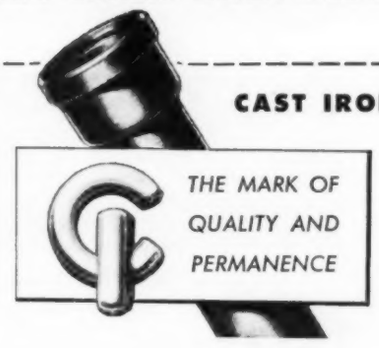
No. & Street_____

City_____ Zone_____ State_____

USE PERMANENT CAST IRON SOIL PIPE AND FITTINGS

HOW ARCHITECTS CAN MAKE VALUABLE USE OF THE INSTITUTE'S HELP

The Institute's motion picture film, "Permanent Investment," helps to alert prospective home owners to the importance of the best possible materials for the plumbing drainage system. Prints of this film may be obtained without cost for showing before interested groups. For full information and for literature on plumbing drainage, written for the consumer, use the convenient coupon.



CAST IRON SOIL PIPE INSTITUTE

Dept. AR-3, 1627 K Street, N. W. Washington 6, D. C.

☐ Send educational folder, "Plumbing Drainage."

☐ Our local_____ Club wants to see your movie, "Permanent Investment." Tell us how to arrange for free showing.

Name_____

Address_____

City_____ **Zone**_____

State_____

A-E-H PRODUCTS

(*Continued from page 254*)

been designed for individual decorating schemes. One model is made of strong translucent "Fiberglas," which can be wiped off easily with a damp cloth and requires no special cleaning or upkeep. It is available in yellow, gray, beige and white. To compliment birch doors the designers have provided a model of lacquered birch louvers. The third model is made of unfinished fir louvers, and may be painted, papered or covered with fabrics to match or harmonize with draperies and furniture.

All models reportedly can be easily installed. They come packaged in one and three ft sections for rooms 8 and 8½-ft high, but may be easily fitted for rooms of any height. Custom sizes are available on request. *Sandor Products Inc., Detroit, Mich.*

LIQUID PROCESS COLOR DUPLICATOR

A new *Duplicopy* liquid process duplicator features "Magic Fluid Flow" said to feed the precise amount of fluid for best operation. A patented wiper blade reportedly assures even distribution of the fluid over the roller, makes possible sharp, clean, dry copies, and eliminates flooding, offsetting, and consequent loss of time and paper. The new machine is described as extremely simplified in operation. There are no stencils to cut and the master can be prepared as easily as typing. Anything hand-written, typed or drawn can be reproduced at speeds up to 150 copies per minute and in as many as five colors at one time. Hairline register on color reportedly can be obtained. The machine prints a minimum of 300 copies from one master, and master copies can be saved for re-use. Capacity for the machine ranges from postcard size up to 8½ by 14 in.

Two models of the machine are available. The Model A-44 has automatic feed, and the model H-44 is a manual feed unit. Both feature streamlined design and are finished in sapphire gray and satin aluminum. *Duplicopy Co., 224 W. Illinois St., Chicago, Ill.*

NEW STEAM GENERATOR

A new *Vapor-Clarkson* steam generator *Model OKJ-4740* can change from fuel oil to natural gas fuel by a flip of a switch, and without interrupting steam

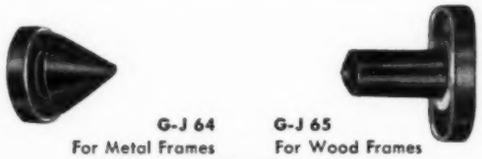
(*Continued on page 262*)

"... the patient must have absolute quiet."

GLYNN-JOHNSON

devices for HOSPITAL ROOM DOORS

G-J 320
Concealed Door Holder—Friction Control
. . . keeps the door stationary, always under control. Prevents idle swinging and slamming. Gentle hand pressure moves the door to desired positions.



G-J 64 For Metal Frames
G-J 65 For Wood Frames
Pneumatic Rubber Door Silencers
. . . form pneumatic air pockets when compressed by closed door. This provides exceptional cushioning power to prevent both door noise and latch rattle.

G-J 30
Roller Latch
. . . eliminates the annoying click of latch bolts. As the door is closed, the rubber roller contacts the strike and becomes engaged in the strike plate depression—with complete silence.

G-J KH-1
Hospital Door Arm Pull
. . . helps nurses and attendants avoid waste motion and unnecessary noise by permitting them to open and close doors with their arms, when their hands are occupied with trays or other articles.

These and many other G-J door devices are today being used on every type of door in thousands of hospitals and institutions throughout the nation, where, in addition to providing complete, efficient, and economical service, they are answering the need for silent performance of duty, expressed by the doctor's caution, "*Above all, the patient must have absolute quiet.*"

4544

Glynn-Johnson Corporation
Builders' Hardware Specialties for over 30 Years
4422 N. Ravenswood Ave. Chicago 40, Illinois

Refer to G-J Catalog for complete line of door holders, bumpers, and specialties . . . for all types of doors in public and commercial buildings.

(*Continued from page 258*)

output. The Vapor engineers have incorporated the fuel-oil spray nozzle into the metal body of the gas burner. By flipping the fuel selection switch from natural gas to oil, the motorized gas valve closes and the fuel oil solenoid valve opens, releasing oil under pressure to the spray nozzle. A constant spark and pilot light insure positive lighting.

This new Vapor-Clarkson steam generator Model OKJ-4740 develops steam pressure up to 300 lb. pressure in less than three min from cold water, and makes 1500 to 5000 lb. of steam per hour. The manufacturers claim that it is over 80 per cent efficient.

Generator runs on gas or oil

Once started, by turning one switch, automatic controls take over, causing the steam generator to turn on and off and modulate steam output to meet a changing steam demand. The steam pressures may be changed from 10 to 300 lb pressure by turning one control. A patented steam separator removes excessive moisture and water treatment particulars from the steam so that 99 per cent dry, clean steam is directed through the stop valve to the steam line.

The steam output is modulated by a servo-control which meters the fuel, combustion air and feed water, in proper amounts. To efficiently produce the amount of steam needed by the factory at a particular time, steam output is automatically increased or decreased.

The manufacturer reports several safety controls: the steam temperature limit control; low water shut off; two safety valves; overload relays and electric eye built into the machines.

This Vapor-Clarkson steam generator is a complete package which includes the 7½ hp electric motor, blower, feed water pump, steam separator, steel coils, and all controls, in one cabinet. No special building or walled-in area is necessary as these units, which may be used as one unit or in banks of several units, and can be operated by a master control that automatically turns on the number of units necessary to make the amount of steam needed.

The Vapor-Clarkson is 50 in. wide, 80 in. high and 73 in. long. *Vapor Heating Corp., Dept PR, 80 E. Jackson, Chicago, Ill.*

FIRE RETARDANT PAINT

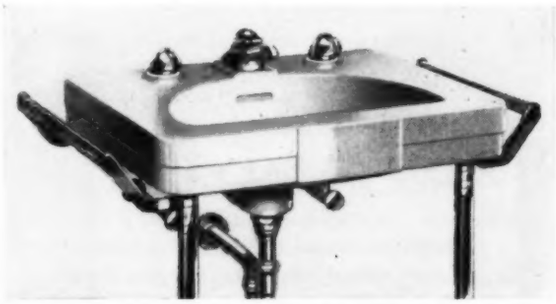
Cited as a new development in paint manufacture is a fire retardent compound containing carbon dioxide and calcium chloride, which is claimed to smother fire and retard the spread of flame right on the surface. *Fyr-Kole* reportedly can be applied as easily and economically as ordinary interior paint, over any interior surface — including the most combustible. It is available in a variety of decorative colors and has been listed by Underwriters Laboratories. *Fyr-Kole Co., A Div. of Morris Paint & Varnish Co., 27th & Douglas St., Omaha, Neb.*

(*Continued on page 266*)

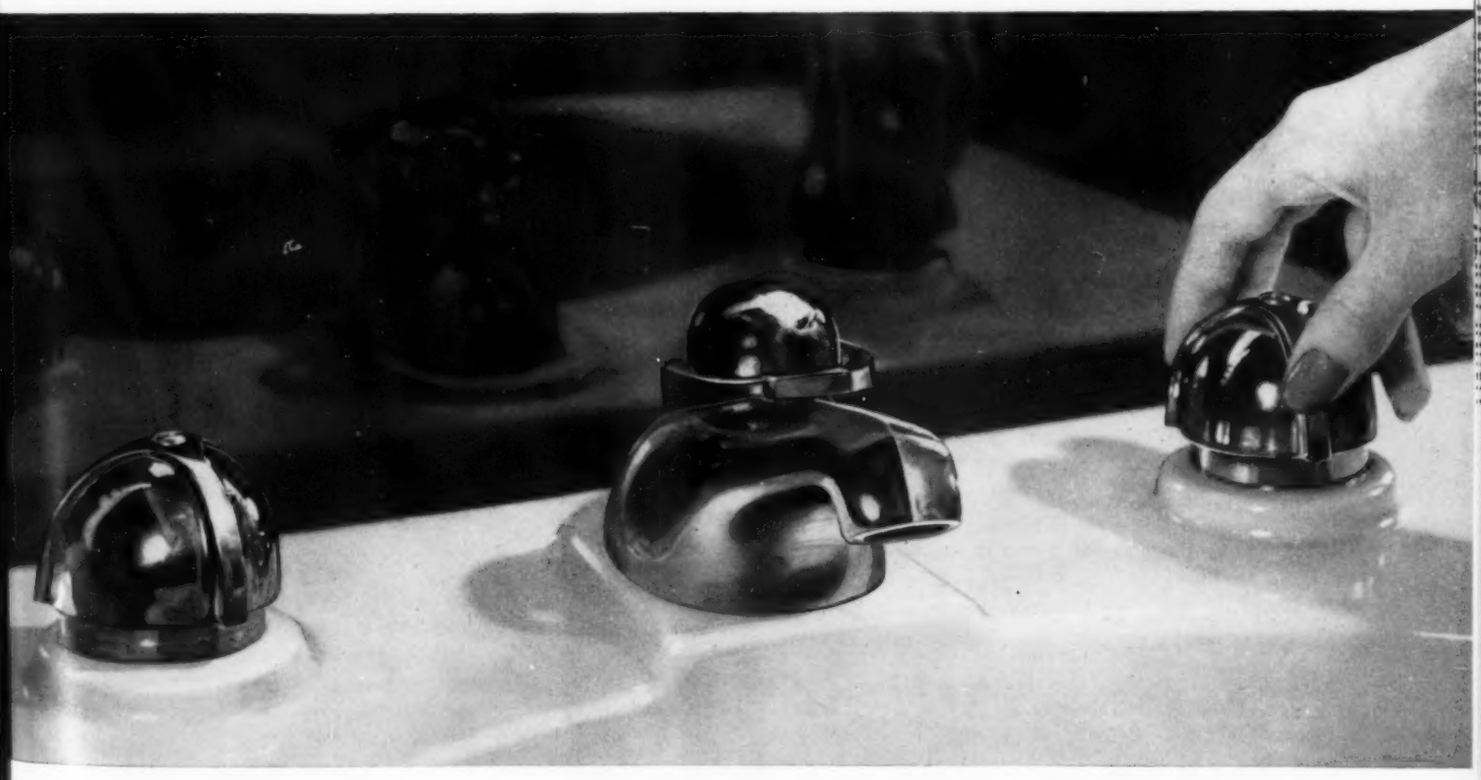
WHY YOU SHOULD SPECIFY

CRANE

In Crane bathroom and kitchen fixtures, you have design that is as fresh as today's architectural thinking... styles and sizes as varied as the needs of your clients... a line so complete you never need look beyond the pages of the Crane Architect's Catalog. And in the minds of your clients, as you probably know, no other name in plumbing so strongly signifies quality.



The Crane Diana lavatory is of lustrous vitreous china with semi-oval basin and paneled front. Supported by chrome-plated metal legs. Available with or without chrome-plated towel bars. Three sizes: 24 x 20", 27 x 21" and 33 x 22".



Crane matched and colored fixtures

When you plan a bathroom around Crane fixtures, you find it easy to achieve harmony of both design and color.

That's because the Crane line is so extensive that, regardless of the size or type of bathroom, there are Crane fixtures to fit it exactly—in size, shape, design. And in color, too.

With a choice of white or eight beautiful decorator colors available, Crane offers the widest selection of colors on the market.

CRANE CO.

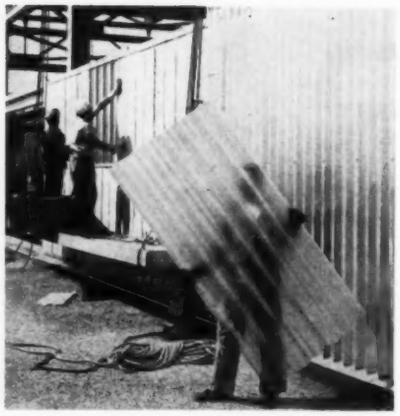
GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5

VALVES ... FITTINGS ... PIPE ... PLUMBING AND HEATING

(*Continued from page 262*)

TRANSLUCENT PLASTIC STRUCTURAL SHEETS

A new translucent structural sheet of Fiberglass-reinforced polyester resins is being molded by Resolite Corporation. The new sheet is called *V-beam* and nests with the corrugation of available protected metal roofing and siding sheets. Designed for wider purlin and girt span, the greater corrugation depth provides increased rainfall runoff capacity for roofs of low pitch. Sheet specifications are: lengths up to 12 ft; overall width 29 in.; coverage width 26½ in.; corrugation pitch 5.3 in., depth 1¾ in. While the sheet will be made in any of 10 standard colors on special order, normal production will include pale green, ice blue and semi-clear, for the purpose of providing effective skylights and sidewall glazing for industrial buildings. Such plant daylighting is said to be economical since it eliminates flashing, caulking and special framing. The material is reportedly shatterproof and unaffected by weather extremes of heat, cold and moisture, and by normal industrial fumes. This helps to curtail maintenance costs. *Resolite Corp., Zelienople, Pa.*

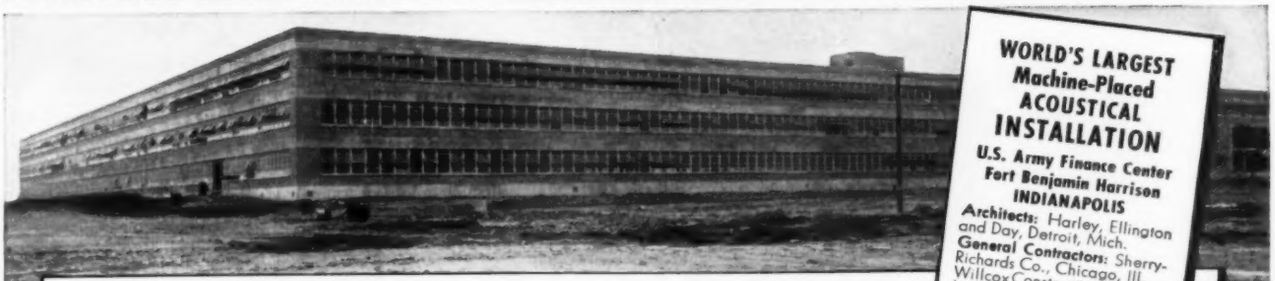


STEEL-REINFORCED FLOORING

A new "packaged unit" heavy duty flooring is available from United Laboratories. Called *Steel-Rock*, the new flooring reportedly combines for the first time a heavy steel mesh and special filler as a complete unit for surfacing floors subjected to extra-tough abuse. Claimed to meet rugged requirements of modern industrial production and materials handling problems, the flooring is purposely engineered to combat floor destruction caused by tons of heavy rolling traffic. Prime advantages claimed are its ability to withstand impact as well as heavy loads, and to remain maintenance-free for years to come. The resilient filler used in the grid compacts to meet the level of the steel ribs, thereby permitting wheels to ride on the steel without the noise and slipperiness of a solid steel surface. The product may be applied over new or old surfaces of wood or concrete, inside or outside, at a depth varying from ⅜ to 1 in., depending upon job requirements. *United Laboratories, Inc., 16801 Euclid Ave., Cleveland, Ohio.*

(*Continued on page 270*)

Here's the Interesting Story of
AMERICA'S MOST AMAZING ACOUSTICAL JOB



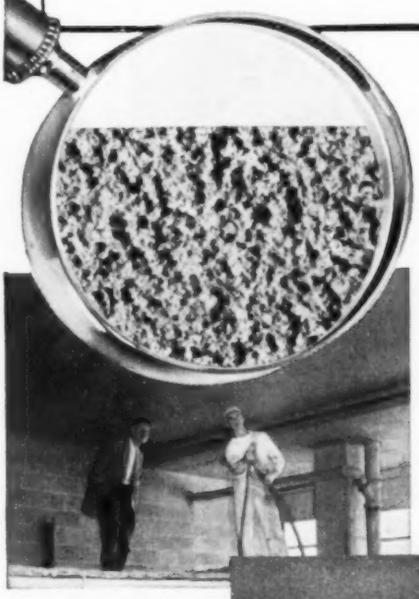
WORLD'S LARGEST Machine-Placed ACOUSTICAL INSTALLATION

U.S. Army Finance Center
Fort Benjamin Harrison
INDIANAPOLIS

Architects: Harley, Ellington and Day, Detroit, Mich.
General Contractors: Sherry-Richards Co., Chicago, Ill. Willcox Construction Co., Inc. Indianapolis Corbetta Construction Co., Chicago, Ill. James McHugh Construction Co., Chicago, Ill.
Plastering Contractors: McNulty Bros. Co., Chicago.

THEY CAME TO WATCH FROM ACROSS AMERICA!

Plastering contractors from all corners of the nation traveled to see this job because it is a revolutionary new technique of acoustically treating large areas with amazing speed. *And they were impressed!*



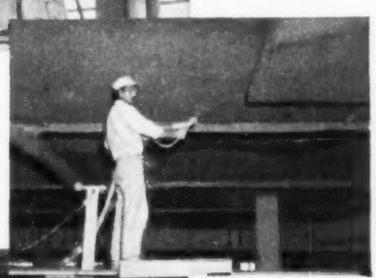
30 ACRES OF ACOUSTIC!

Unbelievable, but true!

2250 Square Yards of Finished Acoustical Per Day!

No wonder Zonolite Acoustical Plastic was specified in the Army Finance Center project! Ease of application, plus Zonolite's benefits of top sound absorption, beauty, and super fire protection make Zonolite the ideal acoustical material for government buildings, hospitals, hotels, office buildings, stores, homes, etc. Find out how you can make Zonolite Acoustical Plastic *work wonders for you* in maintaining the maximum degree of sound conditioning, beauty and fire protection—at low cost.

ATTRACTIVE FINISH—beautiful finish achieved without use of plaster tools. Magnified inset shows decorative texture produced; traps sound, gives noise reduction coefficient of 0.65.



NO FURRING! Photo shows application of Zonolite Acoustical Plastic. Adheres direct to exposed concrete.

Photo shows secret of this high speed acoustical treatment. Combination of Zonolite Acoustical Plastic and plaster placing equipment accomplished unprecedented record acoustical installation.

FREE BOOK Before starting *your* next job get the full story of the world's largest machine-placed acoustical job. Mail coupon for story, *"30 Acres of Acoustic!"* and free descriptive booklet giving complete information about time-saving, cost-cutting Zonolite Acoustical Plastic.

ZONOLITE COMPANY

135 S. LaSalle St., Dept. AR-34, Chicago 3, Illinois

ZONOLITE BRAND VERMICULITE AGGREGATES

Zonolite Company, 135 S. LaSalle St.
Dept. AR-34, Chicago 3, Illinois

Gentlemen: Please send story "30 Acres of Acoustic" and free descriptive booklet PA-5 on Zonolite Acoustical Plastic.

NAME.....
FIRM.....
ADDRESS.....
CITY.....**ZONE**.....**STATE**.....

☐ Architect ☐ Builder ☐ Other

AH PRODUCTS

(*Continued from page 266*)

INTERLOCKING RUBBER TILE

Available in a wide variety of marbleized colors, *Rubberlock* is a new type of interlocking tile. Made in two section sizes, 8 by 8-in. and 24 by 24-in., in 1/4 and 1/2-in. thicknesses, the tiles can easily be placed in position on concrete or wood floors or below grade level without the use of cement or mastic. Rubberlock is also available in either smooth or corrugated surfaces in black. Cost estimates and color samples may be obtained from *R. L. Mitchell Rubber Co., Dept. AR, Attn. M. M. Levitt, 2114 San Fernando Rd., Los Angeles, Calif.*

New rubber tiles interlock

SIMULATED MARBLE

Recently developed, after years of experimentation with polyester resin, *Cali-marb* simulated marble may be used for many decorative applications. It is reported that the material will not break as easily as real marble, resists heat, stains, weather and rot, has a tensile strength greater than steel (on a weight per weight basis) and is easy to keep clean. Said to be particularly appropriate for renovating interior and exterior store fixtures, Cali-marb is also suitable for use in offices, restrooms, etc., and may be used to cover such surfaces as tables, counters and radiator enclosures. Application is a simple adhesive process which requires no special skill. The material is sold in sheet form, and may be cut and sold in various sizes. It is available in white, black, green and reddish brown, and is said to duplicate the delicate graining and smooth surface of real marble. *Caligari Products, Dept. B-3, 806-808 W. 21st St., Norfolk, Va.*

(*Continued on page 272*)

Specify

SALES-BUILDING LUXURY HARDWARE of ALCOA ALUMINUM at regular prices!

Made in designs to harmonize with traditional or modern architecture, builders' hardware made of Alcoa® Aluminum adds sales appeal to any home. Yet leading manufacturers offer these luxury lines of lock sets, escutcheons, hinges, window and cabinet hardware made of solid Alcoa Aluminum at regular hardware prices.

Alcoa helped these pace-setting manufacturers by developing alloys that were corrosion resistant all the way through, by developing beautiful finishes that won't chip or wear off, by developing fabricating methods that keep the price low. Ask your hardware consultant or builder about the quality lines of builders' hardware made of Alcoa Aluminum. ALUMINUM COMPANY OF AMERICA, 1971-C Alcoa Building, Pittsburgh 19, Pa.

ALCOA ON TV brings the world to your armchair with "SEE IT NOW" featuring Edward R. Murrow, Tuesday evenings on most CBS-TV stations.

ALCOA ALUMINUM

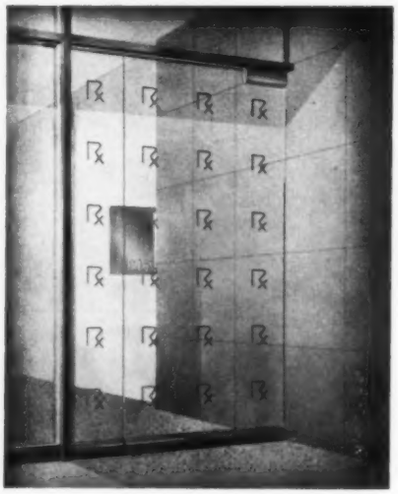
ALUMINUM COMPANY OF AMERICA

AE PRODUCTS

(Continued from page 270)

TEMPERED GLASS FOR DOORS

Pittsburgh Plate Glass Co. has recently developed a new *Herculite* tempered glass for use in all-glass doors and store front applications. Because decoration may be had in permanent, fired-on true ceramic colors, or in sandblasted patterns, an almost limitless range of design possibilities is reportedly offered. Functional improvements of the glass cited are: will not solarize (turn amber when exposed to sunlight); is glare-reducing; chances of accidents are minimized by the more apparent edges. Hardware is of a simple, modern shape. *Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.*



New glass uses custom designs

MODULAR FURNITURE

Otto Kolb has recently designed some extremely functional and versatile furniture for Dart Associates, built on a modular principle. Designed so that there is no separation between them, the units achieve a custom-made look, using sections with drawers of various sizes, open shelves, or storage areas with wood or slat doors. The furniture is available in birch, ebony, walnut and mahogany, and constructions are possible from 18 by 20 by 16 in. to any desirable size. The units are described as inexpensive. An attractive feature is that one can start out with a few basic pieces and add to them later, as space, needs and budget will allow. Dart Associates, Inc., 39 West 23rd St., New York 10, N. Y.

Bethlehem Longspan Joists give maximum column-free space to this store interior at the Thruway Super Plaza, Inc., Cheektowaga, N. Y. *Architect:* Trevor Rogers, Buffalo. *General Contractor:* Sommer Bros., Buffalo.

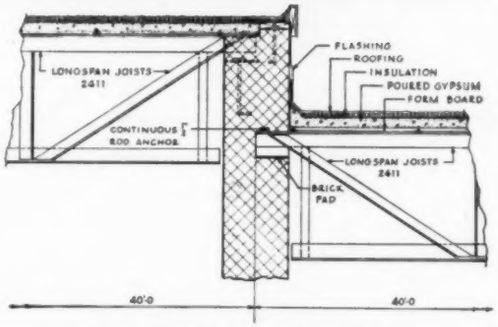
SHOPPING CENTER NEAR BUFFALO ROOFED WITH STEEL JOISTS

Typical of the trend toward fully integrated suburban shopping centers is the Thruway Super Plaza at Cheektowaga, N. Y., just outside Buffalo. With its 38 stores, offering a wide variety of merchandise within the equivalent of two city blocks—and plenty of parking space—the Thruway Super Plaza is a shopper's dream. It enables residents of the surrounding area to fill most of their household and personal needs with only one stop, one parking space to find, and without long walks with heavy packages.

The 38 connected buildings that compose the Thruway Super Plaza are of various sizes, some with one story, others with two. All of them have Bethlehem Open Web Steel Joists in the floor and roof construction.

Wherever maximum column-free space was needed, Bethlehem Joists of the Longspan type were used. By using a total of 441 tons of Longspans, in lengths up to 50 ft, the architects gained greater freedom in planning for aisles, counters and merchandise display.

In addition, 262 tons of standard-type open-web joists were supplied by Bethlehem for locations where spans of unusual length were not required. These joists, when used in floor construction in combination with concrete floor slabs and plaster ceilings, form a floor structure with fire-resistance of from one to four hours, depending on the thickness of the slab and type of plaster used.



Typical section of through party wall between stores of different ceiling height.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM OPEN-WEB STEEL JOISTS

BETHLEHEM STEEL

A|E PRODUCTS

(*Continued from page 270*)

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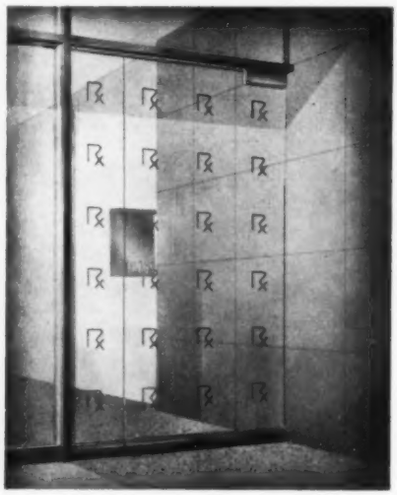

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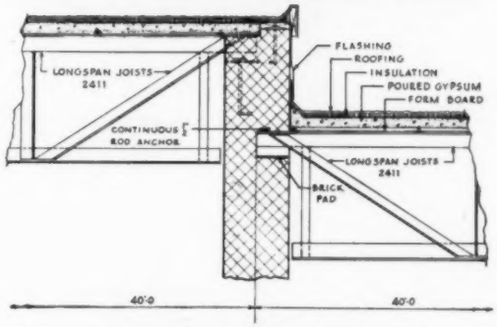

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BETHLEHEM OPEN-WEB STEEL JOISTS

BETHLEHEM STEEL

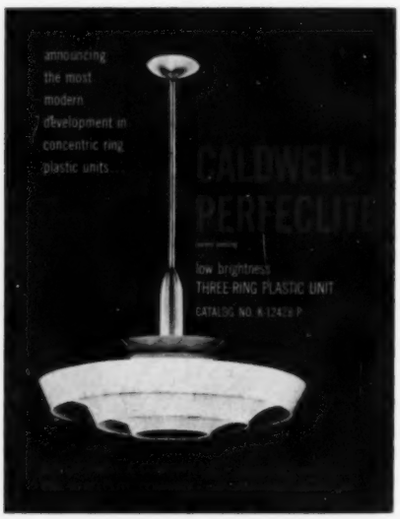
AEH LITERATURE

(*Continued from page 212*)

LIGHTING

• *Smithcraft Area Illumination.* This "pony catalog" contains condensed but complete information on illumination, commercial and industrial fluorescent fixtures and troffers. The booklet is useful as a cross-index of fluorescent lighting. 8 pp., illus. *Smithcraft Lighting Division, Chelsea 50, Mass.*

• *Caldwell-Perfeclite low brightness Three-Ring Plastic Unit. Catalog K-12428-P.* Brochure gives features and engineering data on new concentric ring lighting fixture for incandescent bulbs. Brief specifications are given, along with

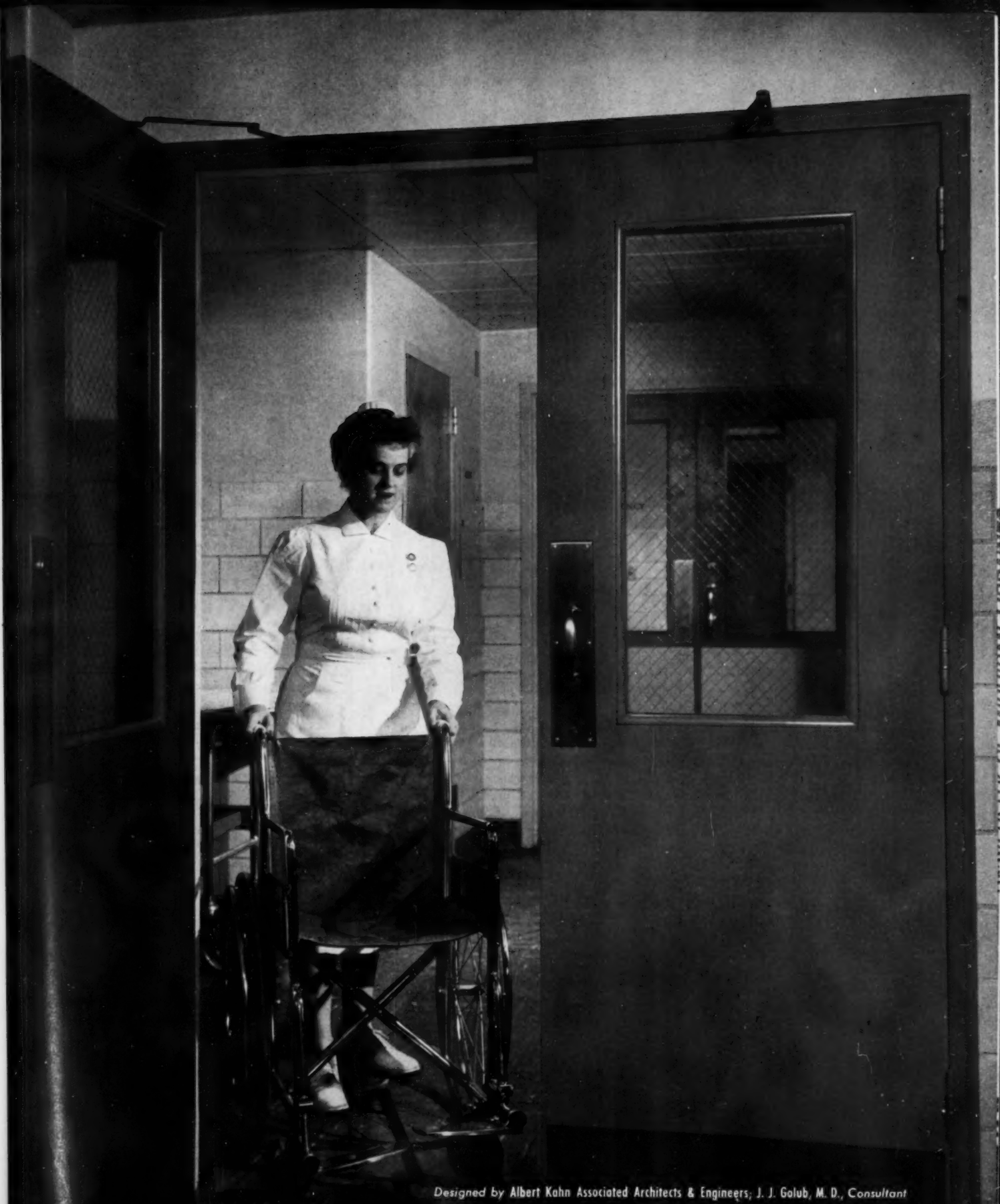


Catalog features plastic ring fixture

weights and other ordering data, and a series of graphs and tables giving luminaire distribution data, light flux values, coefficients of utilization and luminaire brightness. 4 pp., illus. *The Perfeclite Co., 1457 E. 40th St., Cleveland, Ohio.*

• *Westinghouse C.I.F. Catalog 61-030* contains descriptions, ordering information, prices, outline drawings and application information on the following types of lighting: commercial, industrial, flood and ballast. 154 pp., illus. *Westinghouse Electric Corp., Lighting Div., Cleveland, Ohio.*

(*Continued on page 280*)



Designed by Albert Kahn Associated Architects & Engineers; J. J. Golub, M. D., *Consultant*

MODERN DOOR CONTROL BY *LCN* · CLOSERS CONCEALED IN DOORS

SINAI HOSPITAL, DETROIT, MICHIGAN

LCN CATALOG 14 ON REQUEST OR SEE SWEET'S • LCN CLOSERS, INC., PRINCETON, ILLINOIS

A/E LITERATURE

(*Continued from page 276*)

• *Litecraft Domelites Architectural Bulletin No. 554e.* This brochure catalogs the complete Litecraft line of pendant, surface-mounted, recessed and adjustable Domelites, and presents descriptions, technical data and vital statistics for more than fifty different styles. It also contains several new Domelites never shown before. 7 pp., illus. *Litecraft Mfg. Corp., Dept. RE, 8 East 36th St., N. Y. C.*

SCREENING

Owens-Corning Fiberglas Screening. Folder gives features of new screening woven of glass fibers. Qualities, test results and physical properties are covered. 4 pp., illus. *Owens-Corning Fiberglas Corp., Industrial Textile Div., 16 E. 56 St., New York 22, N. Y.*

WINDOWS

Modernaire. A four-page brochure telling of the features of modular awning-type panel windows, includes the dimensions of the basic units, typical combinations, and diagrams of installation. *Builders Products, Inc., Box 374, Station D, Cleveland 27, Ohio.*

SECTIONAL SLABS FOR ROOFS AND FLOORS

Rapidex. Booklet contains outline of the following: general description, function and utility, erection, design flexibility, acoustical properties, appearance, insulation, fire resistance, durability, economy. Also, special notes and charts are included. 6 pp., illus. *Rapidex Co. of Indiana, Div. of Spickelmier Co., 1100 E. 52nd St., Indianapolis 5, Ind.*

ENGINEERING AND SPECIFICATIONS DATA

Horn Construction Data Hand Book, contains caulking and glazing compounds, construction details, defects in painting, floor materials, how to measure flat surfaces, material tables, miscellaneous specialties, moisture repellents, paints and coatings, products index, purpose index, roofing products, weights and measures tables. 106 pp., illus. *A. C. Horn Co., Inc., 10th St. & 44th Ave., Long Island City, N. Y.*

(*Continued on page 284*)

aluminum WINDOWS *by* GENERAL BRONZE

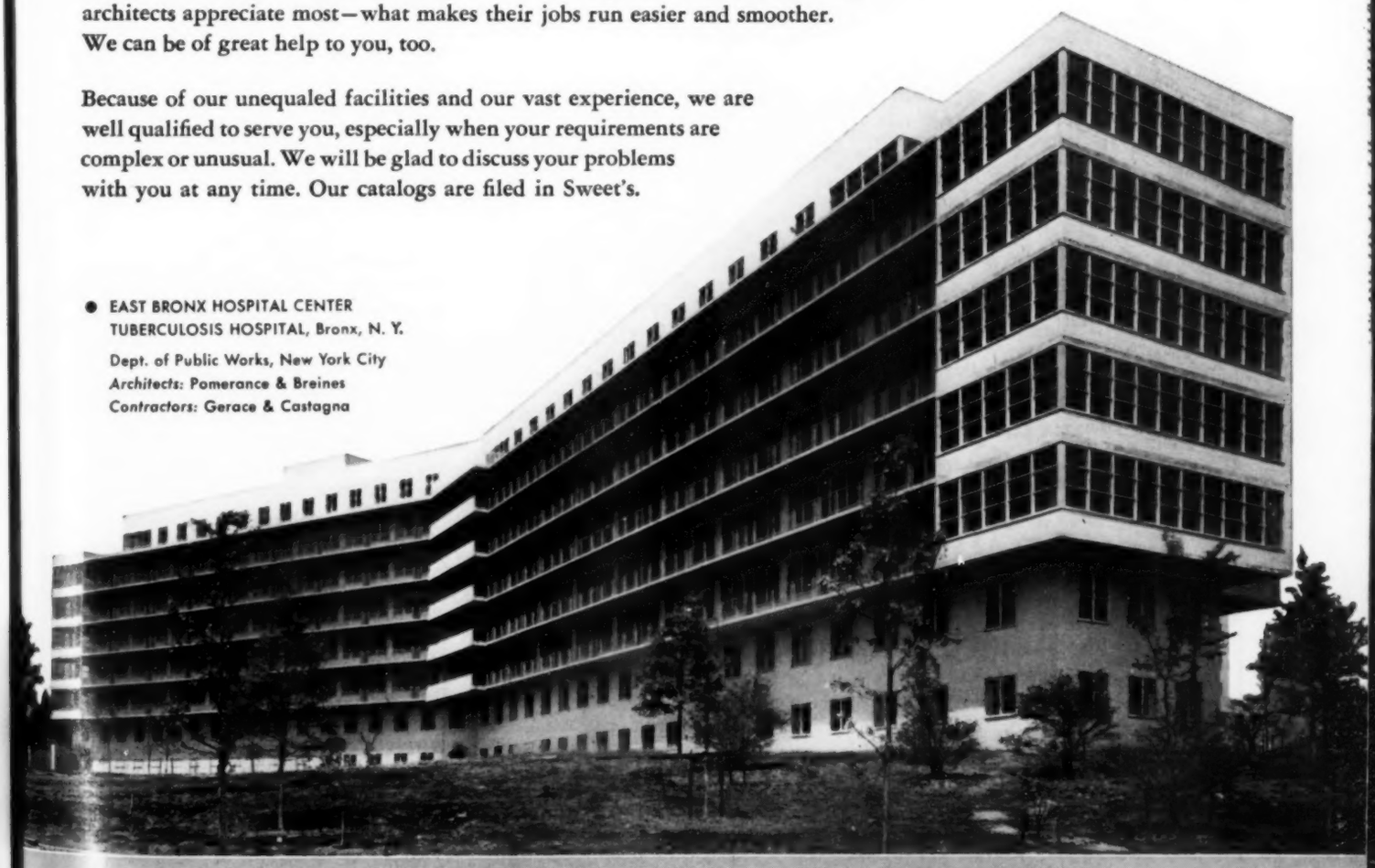
● Whether the hospital building you plan is to be a part of a large medical center in a metropolitan city like the one shown here or a small, one story all-purpose hospital in a small town, there's one thing to keep in mind. Low annual maintenance costs are of paramount importance in enabling any hospital to meet its budget.

Because aluminum windows by General Bronze satisfy every requirement for permanent beauty, easy, efficient operation, controlled ventilation, freedom from cold drafts and rain, and because they never need painting and are easy on the annual maintenance budget, they are preferred and specified by leading architects and by hospital authorities in every section of the country.

QUALITY APPROVED

As you plan new buildings—hospitals, schools, apartments or commercial buildings—take full advantage of the service and 40 years of practical experience General Bronze offers in solving your problems as they pertain to windows, spandrels, curtain walls and architectural metal work. We know from experience what kind of help architects appreciate most—what makes their jobs run easier and smoother. We can be of great help to you, too.

Because of our unequaled facilities and our vast experience, we are well qualified to serve you, especially when your requirements are complex or unusual. We will be glad to discuss your problems with you at any time. Our catalogs are filed in Sweet's.



● EAST BRONX HOSPITAL CENTER
TUBERCULOSIS HOSPITAL, Bronx, N. Y.
Dept. of Public Works, New York City
Architects: Pomerance & Breines
Contractors: Gerace & Castagna

GENERAL BRONZE CORPORATION • GARDEN CITY, N. Y.

PERMATITE DIVISION—Custom-built Windows, Architectural Metal Work and Revolving Doors. ALWINTITE DIVISION—Residential Aluminum Windows.
BRACH MFG. CO. DIVISION—Multel, T. V., Radio and Electronic Equipment STEEL WELDMENTS, INC. DIVISION—Custom fabrication in steel and iron.

AE LITERATURE

(*Continued from page 280*)

TEMPERATURE MEASUREMENT

Resistance Thermometer Bulbs Catalog 5701 lists Brown resistance thermometer bulbs that reportedly withstand a temperature span as narrow as 20 F. continuously. Illustrated are resistance bulbs of high speed, marine, room temperature and sanitary types. Also included are wet and dry bulb resistance thermometer assemblies for measurement of relative humidity. 16 pp., illus. *Minneapolis-Honeywell Regulator Co., Industrial Division, Wayne and Windrim Aves., Philadelphia 44, Pa.*

PRE-FINISHED METALS

Prefinished Nickeloid Metals. Catalog gives extensive illustrated data on patterns, finishes, and applications of Nickeloid metals. The preplated finishes include chromium, nickel, brass and copper on the following base metals: steel, zinc, brass, copper, aluminum. A table of properties and sizes of the various combinations is given as well as a series of notes on fabrication, and production techniques. 24 pp. illus. *American Nickeloid Co., Peru, Ill.*

CONSTRUCTION SUPPORT

Hico Girders. Booklet describing new type of form support for construction of reinforced concrete or precast block floors, ceilings and arches. Advantages of this product, detailed description, handling, and design and erection chart included. 11 pp., illus. *Webrib Steel Corp., 120 Broadway, New York City.*

LITERATURE REQUESTED

The following individuals and firms request manufacturers' literature:

- J. Robert Bence, Architect, 1733 Westridge Circle, Casper, Wyo.
- Dan MacMillan, Architect & Associates, 301 Green St., Fayetteville, N. C.
- Nefe & Diek, Architects, 2120 W. Well St., Milwaukee 3, Wis.
- Philip R. Soloway, Architect, 617 Landis Ave., Vineland, N. J.

THE RECORD REPORTS

1955 Budget (*Continued from page 20*)

5000 classrooms for 140,000 children. The budget also contains a $59 million recommended appropriation for school operating assistance. This is $14 million below the amount for fiscal 1954.

Hospitals — Here the new budget calls for a sizeable reduction in appropriations for Hill-Burton hospital construction but adds some $62 million in authorization for building hospitals for the chronically ill, diagnostic centers and nursing homes. The budget message posed as one main element of the public health program "a broadening of the present Federal grant-in-aid program for hospital construction to stimulate provision of diagnostic and treatment centers, rehabilitation facilities, nursing homes and additional chronic disease hospitals, and to help finance state surveys of their needs for such facilities."

Appropriation of $50 million for the Hill-Burton program would continue the downhill slide in outlays for these private hospitals. The current year's figure is $65 million, and fiscal 1953 saw $75 million spent in Federal monies. The Budget Bureau estimates that $50 million will stimulate construction of about 150 hospitals. Addition of these would bring to 2306 the number approved under the Hill-Burton law.

Housing — Activities of the Federal National Mortgage Association and increased use of private financing for the public housing program have enabled the Administration to show a $277 million credit in net estimated expenditures for all housing purposes in fiscal 1955. Gross outlays are placed at $1903 million and receipts will exceed these by the $277 million, the budget indicated. The net figure compares with an expenditure of $549 million in 1953 and revised estimates of $57 million in 1954.

The budget was critical of present housing programs, describing them as "designed in the main to meet short-run emergencies or . . . developed piecemeal without a clear underlying policy. As a result, housing laws have become a patchwork which only experts can understand."

It was pointed out that most local projects approved for Federal assistance

(*Continued on page 290*)

Sensational, New Axial Flow Ventilator

By TRADE-WIND

TREMENDOUS SUCTION . . . UNUSUALLY QUIET . . . PRIZE DESIGN!

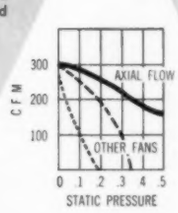
Terrific performance at half the power—unmatched beauty—and tagged with a low L-O-W price is this new AXIAL FLOW ventilator which Trade-Wind has developed under wraps over the past three years.

This revolutionary ALL NEW design now for the first time brings all the great advantages of straight-through axial air flow to the home ventilator field—and at a price that makes kitchen ventilation a BIG feature even for the lowest priced house.

In styling the AXIAL FLOW is as outstanding as its performance. Completely original with its deep intake scroll, it's a prize beauty created by one of America's top industrial designers.

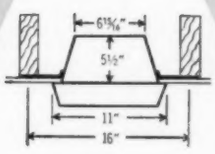
There's nothing that comes close to matching this all-new axial flow development by Trade-Wind. See it, test it, compare it and you'll understand why the Trade-Wind AXIAL FLOW will sweep the light construction market.

REVOLUTIONARY PERFORMANCE of the AXIAL FLOW is indicated in this chart. Note the ability to overcome duct resistance – characteristic of *all* Trade-Wind ventilators.



Write or Wire for Complete Information

STYLED BY HUNT LEWIS. The outstanding originality of the Trade-Wind AXIAL FLOW styling was created by Hunt Lewis, nationally famous industrial designer.



THE NEW Trade-Wind has been designed for the easiest installation. The mounting bars are quickly nailed between joists, the conduit box is fully exposed and the duct work takes any 7" round pipe.

ORIGINATED BY TRADE-WIND MOTORFANS, INC., 5707 S. MAIN ST., LOS ANGELES 27, CALIF.

THE RECORD REPORTS

1955 Budget *(Continued from page 288)*

are still in the planning stage. By the end of fiscal 1955, it is expected clearance and redevelopment will be completed or under way on 180 projects. Approximately 50 had been started by the first of this year. The President said urban redevelopment requires (1) enlistment of greater local and private participation, (2) slum prevention as well as elimination, and (3) rehabilitation of rundown houses and neighborhoods.

A shuffling of the secondary mortgage market operation was expected to entice more private funds into housing loans. Also asked was a sliding scale authority for establishing maximum interest rates on government-backed mortgages. The Administration argued that the greater flexibility would encourage an adequate but not excessive supply of private mortgage funds for all parts of the country. This proposal, said the budget, would make unnecessary any large future purchases of mortgages by the government such as those required in the past when FHA- and VA-guaranteed mortgages were unattractive to private lenders.

Civil Defense — The budget reflected a new concept of civil defense. As Budget Director Joseph M. Dodge put it, "we are buying space instead of shelter." This was a reference to the continuing policy of trying to arrange for people to get out of heavily-populated areas in event of attack, rather than for them to seek shelter within these metropolitan locations. More stress is being laid on improving warning systems and on dispersal of populations. No funds were proposed for construction of mass shelters.

A line of demarcation between Federal, and state and local, responsibility was drawn by the budget message: "It will be the Federal responsibility . . . to provide warning of impending attacks, and to stockpile medical supplies. The Federal government will not assume the responsibilities which belong to local governments and volunteer forces, but will supplement state and local resources, provide necessary information on weapons effects and advise and assist states and localities." A sum of $68 million was proposed as the Federal outlay for these purposes in fiscal 1955.

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(*Continued from page 38*)

PRESIDENT WOULD EXTEND HOSPITAL AID PROGRAM

If Congress accepts the President's proposals for construction of health facilities, architects will be designing diagnostic centers, nursing homes and hospitals for the chronically ill as well as the more conventional types of hospitals under the Hill-Burton Act.

In a special message transmitted to Congress in January, President Eisenhower praised the accomplishments of the Hill-Burton program, but insisted it did not go far enough in providing all types of health facilities required in this country.

Not all illness needs to be treated in elaborate general hospitals that are costly to construct and operate, the President said. Certain non-acute illness conditions, including those of aged people requiring institutional bed care, can be handled in facilities more economical to build and operate than general hospitals, with their diagnostic, surgical and treatment equipment and full staffs of professionals.

Today, said the Chief Executive, beds in our hospitals for the chronically ill take care of only one out of every six persons suffering from such long-term illnesses as cancer, arthritis, and heart disease. It was pointed out that if there were more nursing and convalescent home facilities, beds in general hospitals would be released for the care of the acutely ill, and it might also help to relieve some of the serious problems created by the present shortage of trained nurses.

The President is thinking in terms of special facilities for the treatment of special ailments. Many thousands remain disabled due to the lack of such facilities and services, he maintained.

The health message carried these recommendations for amendments to Hill-Burton:

1. Added assistance in the construction of non-profit hospitals for the care of the chronically ill. These would be of a type more economical to build and operate than general hospitals.

2. Assistance in the construction of non-profit medically supervised nursing and convalescent homes.

(*Continued on page 296*)

Though 50% of this block was destroyed, the Roosevelt Hotel (background) with reinforced concrete frame and floors came through undamaged structurally.

Reinforced Concrete Construction Withstands Destructive Waco, Texas Tornado

Above: Two-story building at right with reinforced concrete floors, walls and roof came through the tornado without structural damage but the adjacent structure suffered extensively. Below: This one-story warehouse was built in two sections. The section with reinforced concrete frame, floors and roof was undamaged; the other part was demolished.

The tornado that struck Waco, Tex. on May 11, 1953 killed 115 persons and wrecked property worth millions of dollars. It ripped a path of destruction one mile wide and four miles long.

Nevertheless some buildings within this area of devastation withstood the full fury of the tornado. An engineering report made following a thorough examination of the damage said, "Without exception structures with reinforced concrete frames suffered little damage."

This is graphic evidence that reinforced concrete construction can "take it." Schools, hospitals, factories, office buildings, apartments —any structure—can be designed in concrete to resist the violent lateral forces and bursting pressures of tornadoes, hurricanes and atomic blast.

In addition reinforced concrete construction offers the durability, strength, firesafety, attractive appearance and ***low annual cost*** that are desirable in any structure. For more information write for a copy of free, illustrated literature, distributed only in the United States and Canada.

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work

Dept. 3-8, 33 West Grand Avenue, Chicago 10, Illinois

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WASHINGTON

(*Continued from page 294*)

3. Assistance in the construction of non-profit rehabilitation facilities for the disabled.

4. Assistance in the construction of non-profit diagnostic or treatment centers for ambulatory patients.

A part of the Presidential plan is a new survey of state needs in these fields. This would extend surveys provided for in the Hill-Burton statute.

Legislation has been introduced to carry out the Eisenhower recommendations. The bills seek some $62 million in additional authorization to cover the additional types of facilities. The budget calls for only $50 million for construction of Hill-Burton hospitals of the present type, but a supplemental request probably will seek funds for the special construction.

ADVANCE PLANNING FUNDS SOUGHT IN 1955 BUDGET

Revival of the "advance planning" programs which meant work for private architects was sought in the fiscal 1955 budget, which provides for a $10 million authorization, and $3 million expenditure, for the advance planning of local public works.

The Administration is anxious to get the program underway, as evidenced by the announcement the request for appropriations would come as a supplemental asking for fiscal 1954, the current year.

Budget Director Dodge, when asked why the appropriation would be sought ahead of other fiscal 1955 items, said, "We want to avoid the usual hiatus connected with initiating a public works planning program."

The proposal appeared to be an out-and-out renewal of the old advance planning program. This involved direct interest-free loans to state and local governments to aid them in preparing for future expansion in public works construction.

Under the first and second advance planning programs (operating since 1944) approved advances totaled $65.1 million. These provided for construction costing an estimated $3648 million.

Last fall the Housing and Home F-

(*Continued on page 298*)

Thermopane windows make this library comfortable, light and cheerful. Birmingham (Michigan) High School. Architect: Swanson Associates, Birmingham.

"We can tell you what's good in school design"

"Our new school has large windows that let you see out and make the room light and cheerful. Now we don't feel 'cooped-up'."

Recently students and teachers in several new schools were asked what they liked best about the new buildings. Both groups were enthusiastic about the "large windows", the "abundance of daylight" and the "daylight quality".

Most of today's truly modern schools use large areas of clear glass to banish the "cooped-up" feeling. These Daylight Walls, stretching from sill to ceiling, add a feeling of spaciousness, bring light and view inside . . . make the classroom a part of the world beyond.

School boards like Daylight Walls, too. They are economical to build (less masonry, lath, plaster and paint). Economical to maintain (glass is easy to clean, doesn't wear out). When glazed with *Thermopane** insulating glass, heating costs are lower and areas close to windows are comfortable on coldest days.

For more facts on school design, write for the booklet described below or call your nearby Libbey·Owens·Ford Distributor or Dealer. *®

FREE BOOK ON SCHOOL DAYLIGHTING

If you have anything to do with school design, you will enjoy reading the new, authoritative publication on school daylighting, *How to get Nature-Quality Light for School Children.* For a free copy write Libbey·Owens·Ford Glass Co., 4134 Nicholas Bldg., Toledo 3, Ohio.

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(*Continued from page 296*)

nance Agency, which now handles the remnants of the first two programs, reported that 7757 jobs were included in all applications where advances had been approved. Plans had been completed on 7536 projects, and construction had been started and loans repaid on 3476.

SCHOOL AID BILLS WOULD FOLLOW HILL-BURTON ACT

Two bills to provide Federal aid for the construction of elementary and secondary schools in all the states were introduced early in the second session of the 83rd Congress. Altogether, the measures had 45 sponsors.

The first, proposed by Senator McClellan (D-Ark.), and 24 others, based its new formula for distribution of Federal funds on the Hill-Burton hospital construction act. Factors would be number of school students and per capita income of the state balanced against the average per capita income of the country. The idea was to channel the most money to states with greatest school building needs.

This same general plan was followed in the Hill-Sparkman bill coming a few days later. Senators Lister Hill and John Sparkman, both of Alabama, also based state share of Federal money on per capita incomes and number of children of school age.

Both measures would leave administration to the states and in both instances authors declared there was need for immediate Congressional action to correct a worsening condition.

ARCHITECTS COVERED IN NEW SECURITY PROPOSAL

Architects and engineers are included in the new group of some 10 million persons who would be brought under the protection of the Old Age and Survivors Insurance System by the proposed Eisenhower program.

They were mentioned, along with doctors, dentists, lawyers and accountants, in the President's message to Congress on this subject.

(*Continued on page 300*)

J-M Movable Walls in both solid panels and panels with glass openings are combined to create this attractive and efficient office

Make your space fit your needs!

Johns-Manville Asbestos Movable Walls provide offices when and where you want them

YOU can rearrange existing offices or partition new space quickly and economically with Johns-Manville Asbestos Movable Walls.

These flush-type, asbestos panels have a clean, smooth surface that's hard to mar, easy to maintain . . . and extra strong to withstand shock and abuse. Also, they are light in weight, easy to install and relocate. The "dry wall" method of erection assures little or no interruption to normal business routine.

Johns-Manville Asbestos Movable Walls may be used as ceiling-high or free-standing partitions. The complete wall, including doors, glazing and hardware, is installed by Johns-Manville's own construction men under the supervision of trained J-M engineers—*responsibility is undivided.*

For details about Johns-Manville Asbestos Movable Walls, consult your Sweet's Architectural File, or write Johns-Manville, Box 158, Dept. AR, New York 16, New York. In Canada, write 199 Bay Street, Toronto 1, Ontario.

JOHNS-MANVILLE JM PRODUCTS **Johns-Manville** ASBESTOS *Movable Walls*

INSTALLED NATIONALLY BY JOHNS-MANVILLE

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(*Continued from page 298*)

The President also urged Congress to liberalize the current retirement qualifications and change the mandate to provide that a beneficiary might earn up to $1000 a year before losing any benefits. For amounts earned above $1000, only one month's benefit would be deducted for each additional $80 earned. Architects and engineers have been concerned, should they come under the system, about the present $75 per month limitation. Mr. Eisenhower said this imposed "an undue restraint on enterprise and initiative."

The American Institute of Architects, which has been conducting a chapter-by-chapter poll of its members to determine what stand by the Institute they would favor, said last month it would make no announcement until the results had been studied by the Board of Directors at a meeting scheduled early this month. The scattered results made known by individual chapters, however, showed a balance in favor of the legislation.

HOW MUCH FOR DESIGN? ARMY TREND IS UPWARD

Engineering and design of facilities constructed by the Army Corps of Engineers in fiscal 1953 cost two and one half cents of each dollar spent, and more than half of this went to private architect-engineer firms, according to a Corps report.

Supervision and inspection at the site cost an additional two cents, and a part of this also went to private firms. Design and field supervision costs thus came to 4.5 per cent of the total cost, a figure the Corps of Engineers believes compares favorably with the "usual fee of six per cent" paid by private industry for similar services.

Construction contractors received 93.4 cents of each dollar going into jobs completed in fiscal 1953. General "overhead" costs were considered low by the Corps — amounting to 2.1 cents of each dollar of the cost of completed jobs; that is, the stateside military construction program's share of the costs of overall administration by ACE's division and district offices.

The construction industry's 93.4 cents

(*Continued on page 302*)

Quite frequently in new construction and especially on remodeling jobs, you find a demand for a second bathroom but space is at a premium. Here's where the AllianceWare "Junior Size" tub—Model B-42-S—gives you all the advantages of space-saving.

From front to back—this tub is the same as standard AllianceWare tubs—30⅝". The length, however, is only 42"—the height is 12"—an especially convenient height for bathing small children—an easy tub for the elderly person to step into—and an excellent idea for a shower receptor.

Made from 14-gauge enameling steel, this model has every other quality feature of AllianceWare tubs. A wide seat forms the outer rim; an integral wall guard extends a full inch on three sides where the tub joins the wall; the finish is AllianceWare quality, stainproof porcelain enamel in white, pink, green, blue, tan, or grey. Write for complete information and installation diagram.

AllianceWare
PORCELAIN ON STEEL

FOR MODERNIZATION...FOR A SHOWER RECEPTOR

You'll go a long way to find a more suitable tub for modernizing jobs where space is limited. And as a shower receptor this tub far exceeds in convenience and roominess the ordinary shower stall.

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Bathtubs • Lavatories • Closets • Sinks

Plants in Alliance, Ohio, and Colton, California

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(*Continued from page 300*)

share of each dollar spent on military construction in the United States represents another gain in a steady upward trend. It compares with 91.3 cents in 1950, 91.8 cents in 1951, and 92.3 cents in 1952.

Payments to private architect-engineer firms have followed a similar pattern. The figures: .4 cents in 1950, .7 cents in 1951, one cent in 1952, and 1.3 cents in 1953.

During fiscal 1953, the Army Corps completed 190 military projects costing $145,098,108 within the United States. Still in progress the first of this year were 4045 jobs of all types with aggregate cost estimated at $2,130,291,000.

MOVE TO CURB BACKLOG OF UNOBLIGATED FUNDS

Congressional pressure is being applied to the Defense Department to curtail its huge backlog of unobligated construction funds, cut red tape in the building program, and expedite military construction all along the line. A recommendation for a $100 million cut in armed forces estimates for fiscal 1955 expenditures by a subcommittee of the House Appropriations Committee early in the new session of Congress has provided an especially sharp nudge.

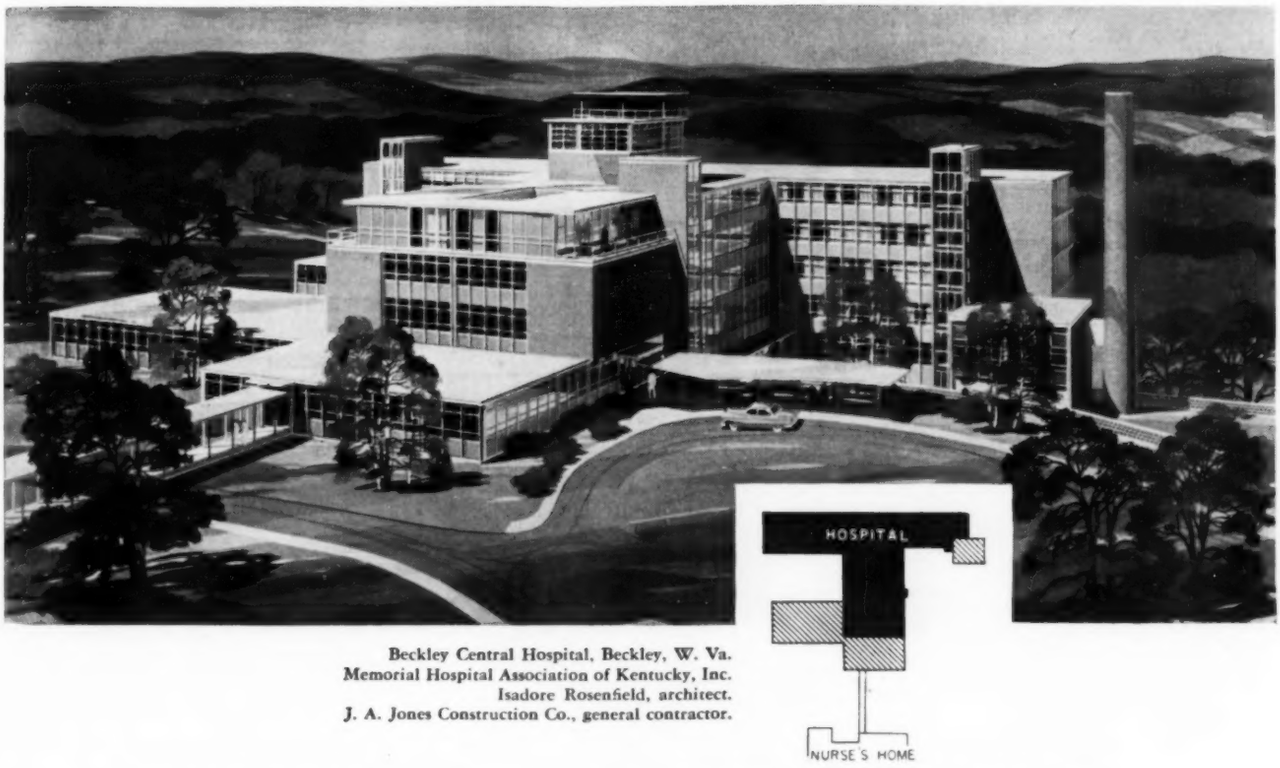
The recent report to the Appropriations Committee on civil functions and military construction couples its recommended cuts in expenditures with a request for a thorough review of the military construction program of the Defense Department with special attention to the mounting unobligated balances.

The status of appropriations (as of September 30, 1953) showed this situation:

Out of total appropriations of $9,395,739,139, a sum of $6,222,925,095 had been obligated and only $4,720,380,896 expended. The Navy came closest to using all the money Congress had given it and for that reason did not share to the extent that Army and Air Force did in the criticism voiced in the report. Navy had obligated $1,388,878,190 and spent $1,077,359,849. Its appropriations were $1,804,514,040.

Air Force, on the other hand, had been

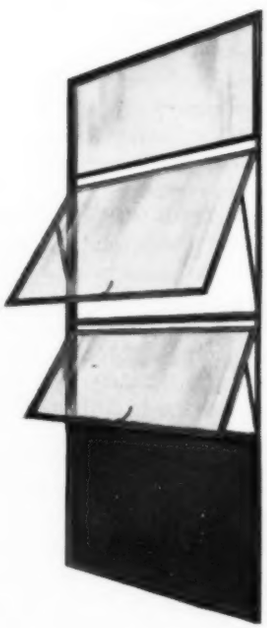
(*Continued on page 304*)



Beckley Central Hospital, Beckley, W. Va.
Memorial Hospital Association of Kentucky, Inc.
Isadore Rosenfield, architect.
J. A. Jones Construction Co., general contractor.

TRUSCON'S NEW VISION-VENT WALL

offers Mass-production Economy of Standard Steel Windows



This exciting new Truscon development opens entirely new concepts of window walls in steel and glass. Vision-Vent is a new building unit incorporating all mass-production and installation economies of standard steel windows. It is designed to cover entire wall surfaces.

Vision-Vent was developed in cooperation with architects, contractors and building owners. Initial application is a chain of ten hospitals built for the Memorial Hospital Association of Kentucky. Anticipated results of this new Truscon construction method are (1) simplicity of design, (2) weather resistance, (3) low first cost, (4) low maintenance cost.

Each Vision-Vent unit is complete—with fixed lights, awning type ventilators, and insulated steel panels. All elements may be varied to meet functional and appearance requirements. Insulated panels—in colored porcelain enamel or in stainless steel—have a "U" factor of .197, equal to that of an ordinary masonry spandrel wall. They retain interior heat. And, they provide for efficient air-conditioning. Minimum wall thickness provides extra square feet of floor space. Erection goes forward in any weather.

Vision-Vent construction is recommended for use in the design of all types of single or multi-story buildings. Truscon window engineers will be glad to study your requirements, and develop design details and costs. More details in Sweet's, or write:

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a name you can **build** on

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given $5,264,203,770 by Congress, had obligated $3,446,026,998, and spent $2,549,928,694. Army's score: $2,327,021,329 in total appropriations, $1,388,019,907 obligated and $1,093, 092, 353 spent.

The redesigning of many facilities to cut costs by removing unnecessary frills was credited with increasing the backlogs. Savings from favorable bids and adherence to austerity standards also contributed. All this the committee favored, of course. But it still held that basically the high balances represented and "revealed" an inability on the part of the Defense Department to carry out a construction program which was presented to Congress as essential to the support of the Armed Forces. This was said to be especially true in the Department of the Army and in the Air Force.

"The committee looks forward to the day," said its report, "when the Department of Defense can present a program that will justify this committee to provide funds free from many of the reviews and controls that are now necessary.

"For the present, however, we feel obligated to be very specific about the allocation of funds, and the attention of responsible officials is called to the fact that clearances herein are limited specifically to the justified line items, except as modified herein, and to them only."

The subcommittee, headed by Rep. Glenn R. Davis (R-Wis.), trimmed current Army, Navy and Air Force construction estimates mightily. This particular action, however, involved no new appropriations since the services planned to use unobligated balances from prior money. A $100,297,000 reduction in the total Armed Forces estimate of $368,989,130 was made by the House unit, leaving the total fund at $268,692,130. A Senate counterpart group made similar approvals.

The lineup on subcommittee action:

Army estimates totaled $63,868,000; the committee approved $43,181,500, a reduction of $20,686,500. Navy estimates were $87,781,130; committee action lowered these to $68,945,630, a drop of $18,835,500. Air Force had asked committee sanction for spending $217,340,000, but the committee allowed it only $156,565,000, down $60,775,000

(*Continued on page 306*)

Another important Duriron installation

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Mies van der Rohe

ASSOCIATE ARCHITECTS
Friedman, Alschuler & Sincere, Associated

CONTRACTOR
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PLUMBING CONTRACTOR
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The Chemistry Building at I.I.T. is one of more than a dozen new buildings already completed in a long-range program which will give the Institute one of the world's most modern campuses. *Duriron Acidproof pipe was installed to handle drainage of corrosive liquids.*

Sales records show more and more schools, hospitals and industrial buildings rely on Duriron. Duriron is a high silicon iron alloy resistant to corrosion, abrasion and erosion. It provides resistance throughout the thickness of the pipe wall. Duriron is installed by regular plumbing methods. Duriron will usually outlast the building in which it is installed.

Duriron pipe, as well as a complete line of standard fittings are available from stock in principal cities, and are described completely in free Bulletin PF/4.

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THE DURIRON COMPANY, Inc., 405 North Findlay Street, Dayton 1, Ohio

THE RECORD REPORTS

WASHINGTON

(*Continued from page 304*)

ADDENDA

• Edmund R. Purves, executive director of the American Institute of Architects, has been added to the advisory committee of national housing leaders set up last May by Federal Housing Administration Commissioner Guy T. O. Hollyday. The FHA announcement said Mr. Purves' appointment reflected "the increased emphasis FHA is placing on architectural design as an essential factor" in improvement of housing standards.

• Private research organizations will conduct 90-day studies of the operation of several of the major Federal-aid-to-construction programs in five selected states for the information of the President's Commission on Intergovernmental Relations. The programs to be studied: hospital construction (surveys and plans); school construction in "Federally impacted" areas; postwar Federal highways and prior Federal-aid highway laws; annual contributions in the low-rent housing program, capital grants for slum clearance and urban redevelopment, and loans for both. Kansas, Wyoming, Michigan, Mississippi and Washington are the states selected for the studies.

• The House Armed Services Committee gave the go-ahead to construction of four bases in Spain. The committee's approval was required under the law, although funds already had been appropriated by Congress. The multi-billion dollar Spanish base program will be started with the expenditure of $49 million on the four bases which will cost approximately $200 million, Committee Chairman Dewey Short said.

• The figure for 1953 housing starts stood at 1,102,400, with the recent announcement by the Bureau of labor statistics of preliminary figures for December. The December total was 68,000, an average figure for the month. The 12-month total was the third largest number of residential starts ever recorded by BLS. It was topped only by the all-time-record year of 1950, and the 1,131,300 units started in 1952.

(*Continued on page 308*)

Owner: Leavitt Homes, Lorain, Ohio Metropolitan Housing Authority
General Contractor: Marvin Helf, Cleveland, Ohio
Architects: Garfield, Harris, Robinson & Schafer, Cleveland
Electrical Contractor: Haladey Electric Co., Lorain, Ohio

WIRING IS *Safe* WHEN IT'S IN REPUBLIC E.M.T.

No lines to turn in close or awkward places when you're using Republic E.M.T. since every coupling is a union.

Whether it's in steel, frame or concrete type construction, Republic, the "Inch-Marked®" E.M.T., provides trouble-free protection to wiring circuits. Besides giving the mechanical protection of steel, Republic ELECTRUNITE E.M.T. acts as an emergency path to ground when needed. It's approved by the National Electrical Code for open, concealed and concrete slab construction. And it carries the Underwriters' Seal of approval on every length.

Unbroken corrosion resistance from end to end is another reason why so many architects specify Republic E.M.T. Runs are joined with galvanized vibration-proof compression-type fittings that fit over the tubing. The zinc coating on the raceway isn't disturbed because there are no threads to cut . . . And the surface coating will not be scratched because wrenches fit on the hexagon nuts. A few simple tools will do the job.

The combination of these safety advantages, plus "Inch-Marking," the ELECTRUNITE Bending System and the ELECTRUNITE Bender, can substantially lower the cost of raceway installations. You'll find more facts in Sweet's File. Or write for Booklet SA-54.

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● "INCH-MARKED"® *The Mark of Quality*

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(*Continued from page 306*)

• "Careful preliminary investigation to determine engineering and economic feasibility is required to produce well-conceived construction projects," said President Eisenhower in his budget message; and an appropriation of $15.4 million is asked for preliminary investigations of all types of construction projects contemplated.

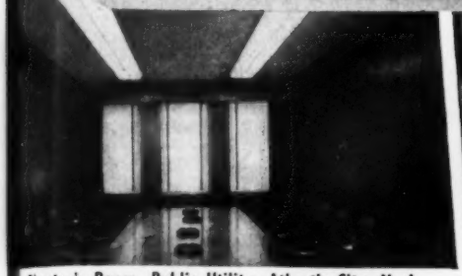
• The nation's capital is the latest test-tube of the National Association of Home Builders for determining the workability of a slum rehabilitation program. N.A.H.B.'s slum clearance expert, G. Yates Cook, has set up a pilot plan in Washington, D. C. to rid this city of what have been described as some of the worst slums in the entire country. If the plan proves successful, N.A.H.B. will use the same pattern in other communities in a nationwide fight against urban decay. N.A.H.B. gets an added advantage in the choice of Washington; members of Congress, close at hand, can be told the benefits and observe them personally as they develop.

• Maj. Gen. Samuel D. Sturgis Jr., chief of the Army Corps of Engineers, wants to see the Corps regain its former "professional standards." In his opinion this is necessary if future wars (as foreseen in military's "new look") are to be won by technology. At present, 85 per cent of the officers on active duty in the Corps are reservists and only 15 per cent are professional engineers. Maj.-Gen. Sturgis would like to see commissions given out to engineering graduates or experienced construction men. The engineering profession has been hard hit, he says: everybody is a manager, not an engineer.

• Congress was being urged by construction industry groups to hurry action of the judicial review bill — the Senate-passed measure which would give contractors relief from a long-standing grievance. The measure seeks to correct an alleged injustice which, by Supreme Court ruling, permits a Federal contracting officer or department head to have the last word in contract disputes. No appeal from such rulings now is permitted unless fraud can be established.

(*More news on page 310*)

HOLOPHANE NO. 9300 Sets New Lighting Standards in a Wide Variety of Modern Interiors . . .



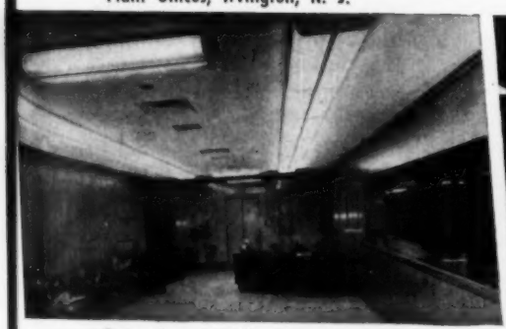
Director's Room, Public Utility, Atlantic City, N. J.

Marlowe Central Station, West Virginia

Plant Offices, Irvington, N. J.

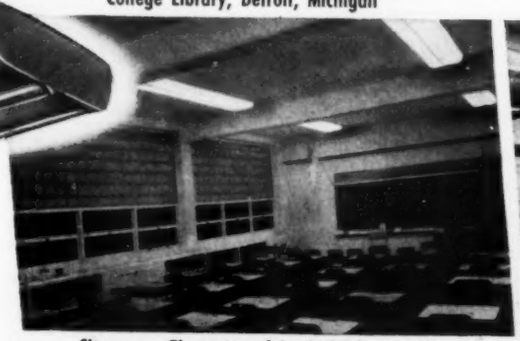
Tonsorial Parlor, Philadelphia, Pa.

Across the country . . . wherever they have been installed . . . No. 9300 Surface-Attached HOLOFLUX* units have earned unanimous approval for their lighting superiority . . . Their shallow depth creates the modern, distinctive look of recessed units, without the cost of roughing-in. Enclosed prismatic construction assures greatest fluorescent light output with complete absence of cumulative glare, even in continuous runs . . . As the photographs herewith indicate, HOLOFLUX units are ideal for an almost unlimited range of applications. Architects and engineers are invited to consult Holophane engineers, without obligation.



Foyer, Insurance Company, Houston, Tex.

College Library, Detroit, Michigan



Classroom, Elementary School, Fairhaven, Mass.

Savings & Loan Co., Anderson, Ind.

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- High Output
- Easy Installation
- Distinguished Appearance
- Continuous Installation
- Minimum Depreciation

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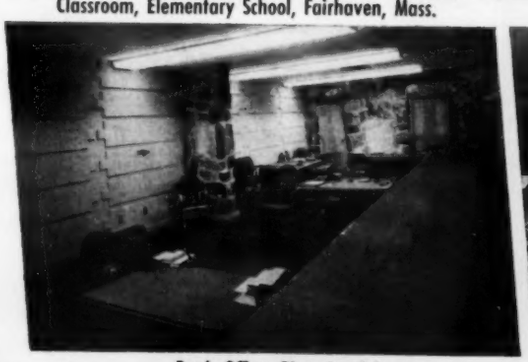

Bank Office, Phoenix, Arizona

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THE RECORD REPORTS

(*Continued from page 308*)

ON THE CALENDAR

March

1–4 Annual convention, Associated General Contractors of America — Hotel Statler, Los Angeles

2–3 Conference on Schools, sponsored by the University of Kansas in cooperation with the Kansas Chapter of the American Institute of Architects and Kansas City A.I.A. — University of Kansas

2–5 Department of Audio-Visual Instruction, National Education Association — Chicago

3–6 Spring meeting of the Board of Directors, American Institute of Architects — Washington

4–6 National Conference on Higher Education, Association for Higher Education, National Education Association — Chicago

4–6 Businessman's Conference on Urban Problems, sponsored by the U. S. Chamber of Commerce and the San Diego Chamber — San Diego

4 The work of Gio Ponti and Gyorgy Kepes in an architecture and design exhibit; until April 4 — Institute of Contemporary Art, 138 Newberry St., Boston

8–11 National Electrical Manufacturers' Association — Edgewater Beach Hotel, Chicago

10–12 Fortieth Annual Convention, Michigan Society of Architects — Hotel Statler, Detroit

10 Street Scene: an exhibition of the work of Yale students and of historical material; until May 2 — Museum of Modern Art, 11 W. 53rd St., New York City

11 Technical Development and Its Impact on Sculpture; sixth in a series of forums on "The Impact of Science and Materialism on the Arts Today" — Architectural League of New York, 115 E. 40th St., New York City

15–19 Tenth Annual Conference and Exhibition, National Association of Corrosion Engineers — Kansas City

18–21 Annual meeting of the Committee on Art Education; theme, "Art Education and the Creative Process" — Museum of Modern Art, 11 W. 53rd St., New York City

22–26 First annual Southern Homes Show, sponsored by Textile Hall Corporation — Textile Hall, Greenville, S. C.

April

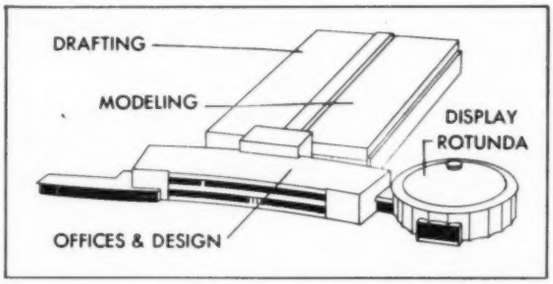
1–6 Sixth Annual National Brickmason Apprentice Competition, sponsored by the Bricklayers, Masons and Plasterers International Union — Los Angeles

8 Future Directions and Changes: What Is the Expression of Our Times? last in a series of forums on "The Impact of Science and Materialism on the Arts Today" — Architectural League of New York, 115 E. 40th St., New York

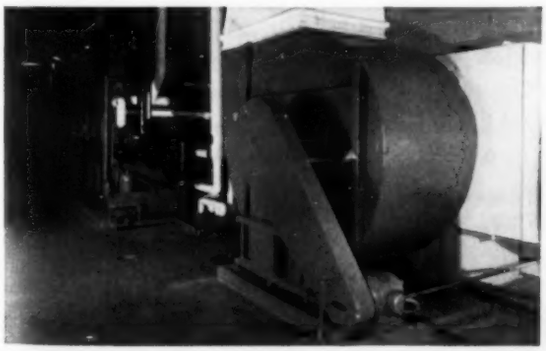
(*Continued on page 312*)

Advanced Styling Section of Ford Motor Company's new $11.5 million Styling Building, Dearborn, Michigan.

Ford "dream shop" has built-in climate!



The design-office wing and display rotunda are served by a central system. It includes: 7 supply fans; 34 exhaust fans; heating and cooling coils and sprayed-coil dehumidifiers – all furnished by American Blower.



Air for drafting rooms and modeling studios is conditioned by 24 specially built, automatically controlled American Blower Air-Conditioning Units. Each unit contains heating and cooling coils and capillary air washers.

This "dream shop" at the Ford Engineering Staff's Advanced Styling Section is just one of many styling areas which depend on clean, conditioned air.

For example, in 12 roomy studios clay-modeling teams work under lights which produce shadowless illumination – and intense heat! To absorb this heat and provide the proper climate for working with clay models, specially designed air-conditioning systems were installed for each studio and drafting room. American Blower Air Handling and Air-Conditioning Equipment was used for this unusual assignment.

The expert know-how of American Blower engineers is on tap for industry at all times. If you have an air-handling or air-conditioning problem, phone your nearest American Blower or Canadian Sirocco Branch Office.

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THE RECORD REPORTS

(*Continued from page 310*)

13–14 Sixth Annual National Engineering Conference, American Institute of Steel Construction — Hotel Schroeder, Milwaukee

15 Design in Scandinavia, an exhibition; until May 15 — Brooklyn Museum, Eastern Pkway., Brooklyn

26–28 Annual meeting, United States Chamber of Commerce — Washington

May

3–5 Annual Meeting, Air Pollution Control Association — Patten Hotel, Chattanooga, Tenn.

3–7 Semi-Annual Convention, Society of Motion Picture and Television Engineers — Washington

3–14 British Industries Fair — Olympia and Earls Court, London, and Castle Bromwich, Birmingham, England

5–7 Eighth National Meeting, Forest Products Research Society, and 1954 Woodworkers' Industry Show — Grand Rapids, Mich.

5–7 Second Welding and Allied Industry Exposition — Memorial Auditorium, Buffalo, N. Y.

5–16 1954 Annual Exhibition, Philadelphia Chapter, American Institute of Architects — Philadelphia Art Alliance, 251 S. 18th St., Philadelphia

7–8 1954 Convention, Michigan Engineering Society — Jackson, Mich.

10–14 Annual assembly, Royal Architectural Institute of Canada — Montreal

17–20 Second Basic Materials Exposition — International Amphitheater, Chicago

18–21 American Planning and Civic Association Conference — Columbus, Ohio

26–29 1954 British Architects Conference — Torquay, England. Information: C. D. Spragg, Secretary, Royal Institute of British Architects, 66 Portland Place, London W. 1, England

31 Canadian International Trade Fair; until June 11 — Exhibition Park, Toronto, Canada

OFFICE NOTES

Offices Opened

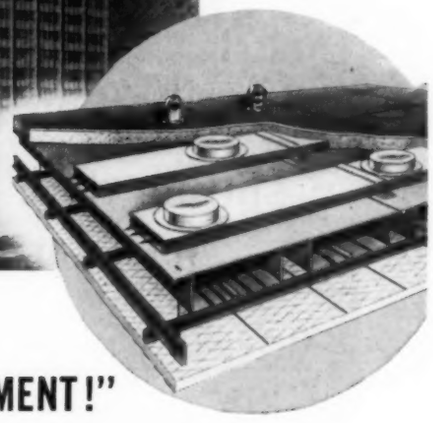
• Beemer Harrell has opened an office for the practice of architecture at 566 Tenth Street Dr., N. W., Hickory, N. C.

• David J. Katz, Architect, has announced the opening of his offices at 355 Arthur St., Gary, Ind.

• Waisman and Ross, Architects and Consulting Engineers, have announced the opening of their new office. The firm's address is 308 Great Western Bldg., 356 Main St., Winnipeg, Manitoba, Canada.

(*Continued on page 314*)

New $26,000,000 City County Building, Detroit, Michigan. Harley, Ellington & Day, Inc., Architects and Engineers; Bryant & Detwiler Co., General Contractors.



Nepco header ducts connected to top surfaces of Fenestra structural steel panel subfloor enable all of the large-area cells to be used as electrical raceways.

The Challenge: "PROTECT THIS BUILDING INVESTMENT!"

The Answer: "AN ADVANCED ELECTRIFIED FLOOR SYSTEM!"

Here, an advanced new floor system—Fenestra-Nepco Electrifloor . . . is protecting this great new multimillion-dollar building from future electrical obsolescence—electrical outlets can be installed *any time* . . . in *any* or *every* square foot of floor space . . . for any future change in electrical needs!

It saved 1,000 tons of structural steel! The cellular steel floors with their integral wiring system, combine such great structural strength with such light weight, that both structural steel and foundation costs were slashed.

It saved 6 months' building time! As many as 7 floors went in at the same time—as soon as a few of the cellular floor panels were laid and interlocked, that part of the floor served as material storage space and a working platform.

New Fenestra-Nepco Electrifloor was developed jointly by Fenestra* (Detroit Steel Products Company) and Nepco (National Electric Products Company)—two great names in the construction field.

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*Trademark

Fenestra Nepco Electrifloor

THE RECORD REPORTS

(*Continued from page 312*)

New Firms, Firm Changes

• K. Izumi, M.R.A.I.C., A.R.I.B.A., has formed a partnership with Gordon R. Arnott. The firm will be known as Izumi and Arnott, and will have offices at Rooms 11–12, 1818 Scarth St., Regina, Sask., Canada. Mr. Arnott was formerly with the Aluminum Company of Canada, Ltd.

• J. H. Lehman, consulting engineer, announces that he has resumed his practice following a tour of duty with the United States Navy. His offices are located at 227 S. Roberton Blvd., Beverly Hills, Cal.

• Harold E. Nefe, Architect, and Paul L. Diek have opened offices at 2120 W. Wells St., Milwaukee 3, Wis. The new partnership will be known as Nefe & Diek.

• The former firm of Painter & Weeks has taken the name of Painter, Weeks and McCarty. Offices will remain at 618 W. Church Ave., Knoxville, Tenn.

• John Lyon Reid, A.I.A., has announced the promotion to partnership of four associates: Richard S. Banwell, Architect; Burton L. Rockwell Jr., Architect; William L. Gillis, Architect; and Dr. Alexander G. Tarics, C.E. The firm, to be known as John Lyon Reid and Partners, will have offices at 1069 Market St., San Francisco 3, Cal.

• Roger O. Austin, Architect; Carl F. W. Kaelber Jr., Architect; Herbert P. Kopf, Engineer; William P. Roberts, Architect; Nicholas J. Masucci, Architect; and Edward J. Ribson, Architect, have been admitted into the firm of Waasdorp & Northrup, Architects, as members and associates of the firm. Offices are located in Rochester, N. Y.

New Addresses

Ash & Harrison, Architects, 307½ Laura, Room 212, Wichita, Kans.

Theodore W. Dominick, Architect, 1308 18th St., N.W., Washington 6, D. C.

Howard T. Fisher & Associates, 270 Park Ave., New York 17, N. Y.

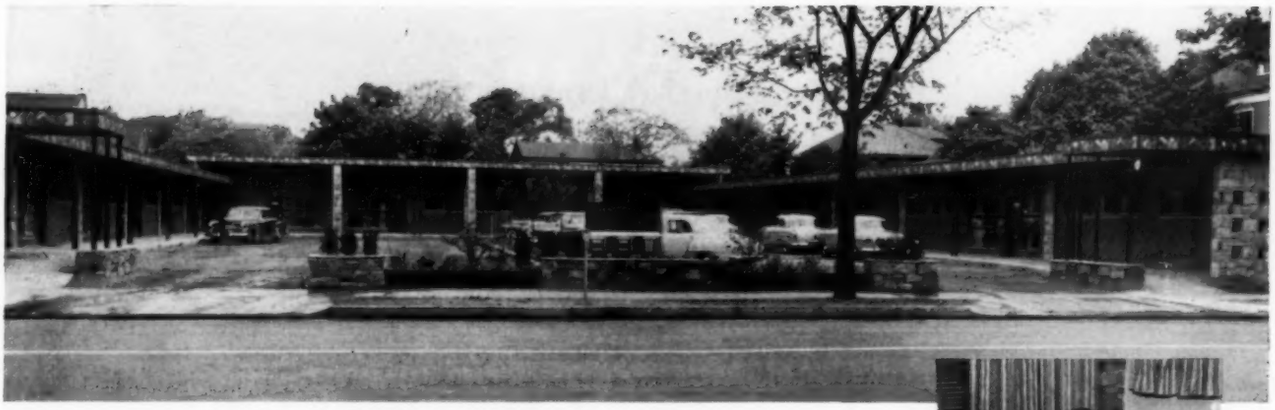
Bruce E. Heiser, Architect, 251 Post St., Room 312, San Francisco, Cal.

NEW GUIDE FOR CITIES ON HOUSING STANDARDS

A new guide for cities interested in developing and enforcing minimum housing standards, or revising their present codes, comes from the Housing and Home Finance Agency as another publication of its research division ("Local Development and Enforcement of Housing Codes" Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.; price, 40 cents per copy).

The guide deals primarily with the technical problems of code formulation and administration. It is not interested directly in development of civic concern for sound codes and their effective enforcement in which civic and business interests play a major role.

(*More news on page 316*)

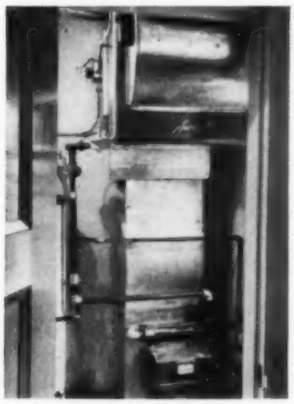


Cedarhurst Medical Center, 650 Central Ave., Cedarhurst, N.Y.

"Our new medical center with its new ideas in comfort required the best in modern heating"

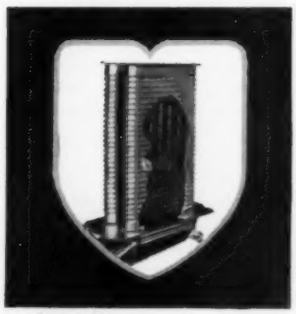
A statement by Mr. Monroe Miller, President, Central at Grove Realties, Inc., Cedarhurst, N. Y.

This functionally modern, U-shaped medical center contains 17 doctors' suites located a few steps from the 50-car, center parking court. Each suite is independent, with its own reception, laboratory, bath and utility rooms. Every tenant controls and supplies his own heat through his individual Janitrol Unit Heater.



The compact Janitrol unit, mounted overhead in the utility room leaves ample space for adding Janitrol summer cooling.

Mr. Monroe Miller, the realtor-builder, specified Janitrol Gas-Fired Unit Heaters to "meet the medical requirements for cleanliness, dependability and quiet operation." The heated air is supplied to each room through concealed ducts, with underground returns. The same ducts will carry cooled air for summer conditioning, which will be added at a future date.



Dura-tube *the armored heart that's practically indestructible!* These vital heating tubes, exclusive with Janitrol, mean longer life. Over 1/4 million have been installed without replacement for any reason!

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THE RECORD REPORTS

(*Continued from page 314*)

CONSTRUCTION IN ASIA IS SUBJECT OF I.L.O. REPORT

The International Labour Office, United Nations labor agency, last year sent Michael O'Callaghan, a civil engineer, to Asia to study labor conditions in the construction field. Mr. O'Callaghan's report sheds a vivid light on the very different problems confronting construction in Asia from those in the West.

The most obvious contrast is the almost complete lack of machinery, and the use of human beings for the hauling of heavy construction materials — rock, concrete, sand and water. Mr. O'Callaghan reports that a good part of this transportation force is made up of women and children, including girls of nine and ten years of age and women in advanced stages of pregnancy. Mr. O'Callaghan says that builders find this mode of transportation unsatisfactory — they far prefer to use donkeys for hauling, but human labor is cheaper!

Women and young girls make up a good part of the labor force in Asia, and are often employed on construction sites to transport heavy building materials by this ancient method

Safety precautions, Mr. O'Callaghan goes on, are also a problem. Scaffolding, for example, is most often made of bamboo, which has the advantages of great flexibility and tensile strength. The framework of these scaffoldings, however, is seldom cross-braced; footboard and hand-holds are rarely provided, although most of the workers are barefoot and the loads they carry are heavy.

Housing for Workers

Each construction project, Mr. O'Callaghan points out, also presents the problem of housing its workers. Not only must the builder provide a roof for the construction worker, but often for his

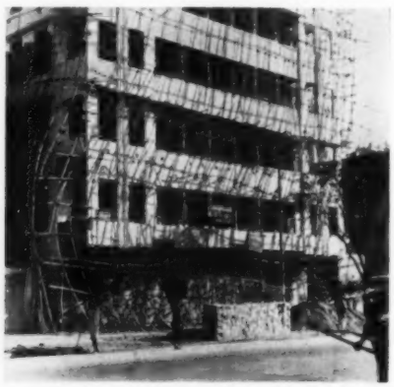
(*Continued on page 318*)

(*Continued from page 316*)

entire family as well, for it is traditional in some parts of Asia for the worker to take his entire family with him to each new job. On large projects such as dam construction and irrigation projects, the number of people to be housed may go up to several thousand.

The housing provided for these workers reflects a consistent disparity between the status of skilled and unskilled workers. Skilled workers are on the whole very well housed, their bungalows equipped with electric light and washing and sanitary facilities. The only fault with their housing, Mr. O'Callaghan found, is that it is very overcrowded. He remarks, however, that this housing is equal to and in some ways superior to the housing provided for construction workers in Europe.

Scaffolding in Asia is most often made of strong and flexible bamboo, but is very seldom cross-braced. Workers must cling to the bamboo with their fingers and toes, for the scaffoldings are not usually equipped with foot-boards



Shelter for Unskilled Workers

The situation of the unskilled workers, however, is another story. Wages for unskilled laborers, Mr. O'Callaghan reports, may be as little as 14 per cent of those of skilled laborers. This is in contrast to the 80 or even 90 per cent of skilled workers' wages which unskilled workers may earn in more industrially advanced countries.

Shelter for these unskilled workers is intolerable from the European point of view, says Mr. O'Callaghan. They live in shacks which are most often made of corrugated iron sheets supported by a crude timber frame, or of reed matting supported by a bamboo frame. They usually build these shelters themselves.

Sanitation facilities are described as "generally rudimentary," with very few outdoor taps furnished for very many large families; in some cases running water may be available only at certain

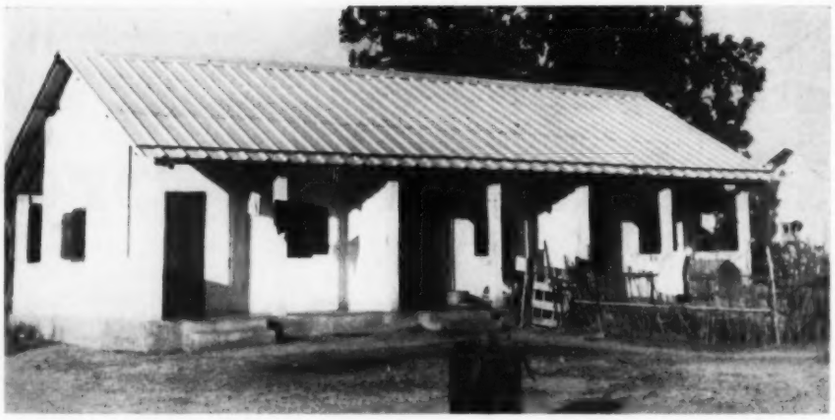
(*Continued on page 320*)

THE RECORD REPORTS

(*Continued from page 318*)

times of the day. However, Mr. O'Callaghan did find evidence of "sincere efforts" to maintain hygienic conditions.

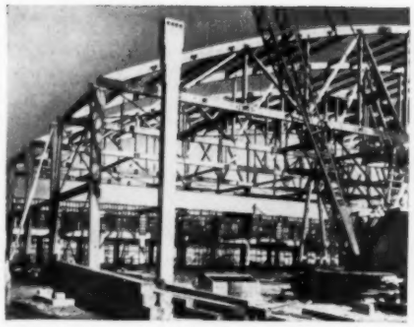
In summing up, Mr. O'Callaghan notes that the problem of housing construction laborers is difficult in all parts of the world because of the temporary nature of such housing, but that the problem is of course aggravated in Asia by the very low standard of living.



Housing for skilled workers (above), says the I.L.O. report, is overcrowded, but otherwise satisfactory; cottages are usually supplied with electricity and water. Shelters for the unskilled workers, on the other hand, are usually shanty structures built by workers (below)

Such company-operated cottage hospitals as this one, the report stated, were not common on the sites which Mr. O'Callaghan visited on his trip

(*More news on page 322*)



Hangar of Westchester County Airport, White Plains, N.Y., is 750 feet wide and 150 feet deep, divided into three equal bays and spanned by 250-foot timber trusses of Timber Structures, Inc. Glulam timber columns are stepped out to support two adjoining trusses. Architect is Julian K. Jastremsky; consulting engineers are Tuck & Eipel; general contractors are Thompson-Starrett Co., Inc., all of New York City.

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These 250-foot timber trusses, the longest ever made, saved more than $100,000 over the cost of alternate steel trusses in construction of this clear span aircraft hangar. In addition they give permanent service with little if any maintenance, and earn fire insurance rates equivalent to those of exposed steel construction.

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Hospital Conference Room and Library

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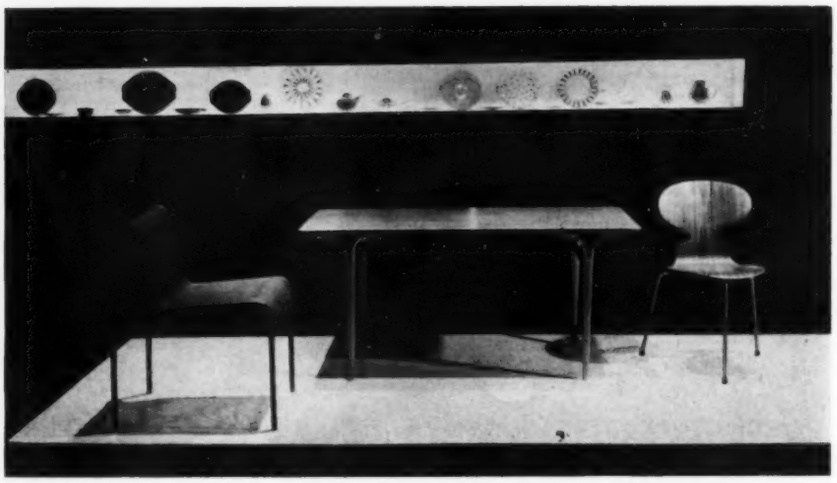
THE RECORD REPORTS

(*Continued from page 320*)



Shown at the Good Design 1954 exhibit, left to right: a dining chair designed by Harold Cohen & Davis Pratt has steel frame, spun nylon cover; a work table designed by Bruno Mathsson; another dining chair, made of walnut or beech with plastic-covered metal legs, by Arne Jacobsen

GOOD DESIGN SHOW OPENS ONCE AGAIN IN CHICAGO

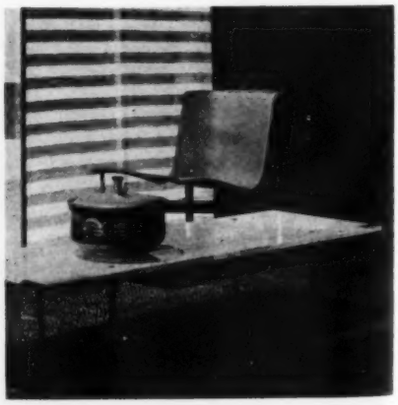
"Good Design 1954" opened in January at the Merchandise Mart in Chicago. This is the ninth of the semi-annual exhibits sponsored by the Museum of Modern Art in New York and the Merchandise Mart.

The Selection Committee, which was composed of Lazette van Houten, former Home Furnishings Editor of *Retailing Daily*, Edward Wormley, furniture designer and Edgar Kaufmann, permanent chairman of the committee, chose 350 items for the exhibit, the largest number of items ever picked for one of the Good Design shows.

The committee observed in these selections the continuation of the two

(*Continued on page 324*)

Above: stainless steel flatware by Italian architect-designer Gio Ponti. Below: the covered stoneware jar was designed by Peter H. Voulkos; chair and table were selected for June show, were designed by Katavolos, Littell & Kelley

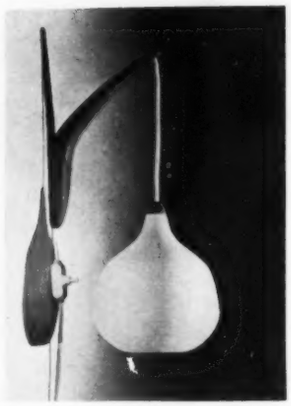


THE RECORD REPORTS

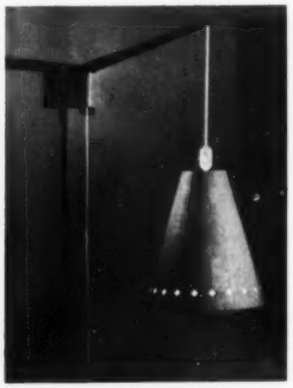
(*Continued from page 322*)

trends of "formal" and "informal" modern — formal modern being defined as having clear-cut shapes and definite colors, informal as using softer shapes and colors.

The most outstanding development shown by the January selection, said Mr. Kaufmann, was the "rationalization and experimentation newly apparent in the design of storage units." Recalling the innovations introduced in the cabinets designed by Charles Eames in 1951, Mr. Kaufmann remarked, "This season for the first time several other designers and manufacturers have taken further steps in this direction, carrying the essential concept notably nearer to the refinement and improvement which promise to make it an enduring feature of modern homes. Two of these were selected for the current additions to Good Design. It is notable and important that neither of these echo the visual character of Eames's first ventures; reminding us that the basic ideas which build the tradition of modern design are capable of rich variety and personal inflection at the hand of capable designers."



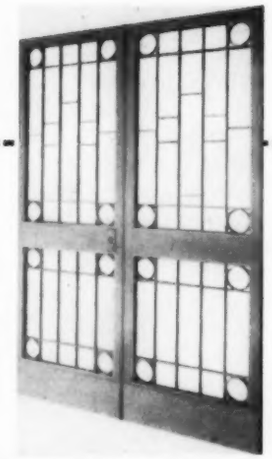
Two lamps designed by Osten Kritsiansson, above with milk glass shade, below with an oak shade. At bottom: lamp shades designed by Sesto Chiarello are of glass fiber in plastic; reversible vases and cups are by Willem Heesen



The installation design by Alexander Girard was held over from the previous exhibition.

The Museum also announced plans for the June Good Design show, which will celebrate the fifth anniversary of the show and the 25th anniversary of the founding of the Museum. This exhibition will include both a forecast of design and a résumé of designs shown in the exhibits from 1950–1954.

(*More news on page 326*)



Entrance to Psychiatric Ward, St. Vincent's Hospital, Worcester, Mass. Architects: Curtin and Riley. The above doors are shown at the factory before being packed for shipment. Note special aluminum grilles and application of special psychiatric lock.

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THE RECORD REPORTS

(*Continued from page 324*)

VIRGINIA A.I.A. CHAPTER MEETS WITH ENGINEERS

The Virginia Chapter of the American Institute of Architects and the Virginia Society of Professional Engineers met in Richmond at the end of January for a three-day joint session focused most importantly on school building.

A forum on "School Needs and Construction" went into the problems created by population growth with its constantly increasing strain on public school facilities, and discussed school design and construction standards and research.

The group also heard an address by John W. McLeod of Washington, chairman of the A.I.A. School Buildings Committee. Mr. McLeod discussed research into the problem of school design and engineering.

Another session posed a familiar question: "What the Architectural Magazines Want for Publication." An architectural editor's view was presented by *Progressive Architecture's* Charles Magruder; and the Virginians were advised by Washington and Lee University Professor Dr. Marshall W. Fishwick that a tendency to the traditional approach — "the Williamsburg blight," he called it — puts them at a disadvantage with the magazines today.

John W. McLeod, Chairman of the A.I.A.'s School Buildings Committee, as he addressed the assembled members of the Virginia Chapter

Members of the school panel were Louis A. Oliver, Norfolk architect; Dr. N. E. Niles, associate chief of the School Housing Section, U. S. Office of Education; Charles A. Pearson Jr., chapter member and moderator; Richard P. Hankins, Richmond engineer; and Arthur E. Chapman, supervisor of school building, Virginia State Department of Education

Virginia Chapter's officers, from left to right: Carl M. Lindner Jr., secretary; Charles C. Justice, retiring president; Paul D. Woodward, president; Henry B. Boynton, vice president; and Herbert L. Smith III, treasurer

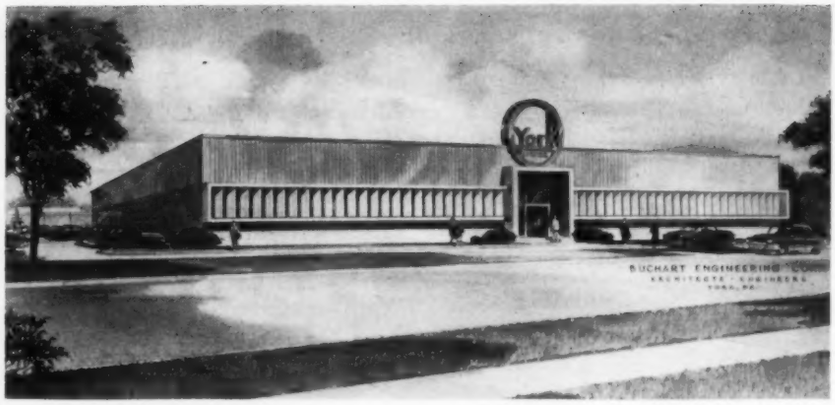
(*More news on page 328*)

THE RECORD REPORTS

(*Continued from page 326*)

YORK BUILDS LAB FOR NEW PRODUCT RESEARCH

A new research and engineering laboratory to concentrate on packaged air conditioning, refrigeration and ice makers is being constructed by York Corporation on its Grantley site in York, Pa. Buchart Engineering Corporation are the architects and engineers; York's own Engineering Division will design and install the internal facilities.



Research and engineering laboratory will have exteriors of aluminum and brick, provide facilities for York's research in packaged air conditioning, refrigeration and ice makers

Testing Facilities Included

The new building, to cost about $900,000, including equipment, will be 150 ft wide and 240 ft long, with exteriors of aluminum and brick. There will be separate research studios for conducting many different projects simultaneously and offices, with modern drafting facilities, for the engineering staff. A major feature will be a completely-tooled shop for production of models of new developments as they emerge — to facilitate laboratory or field tests on new designs at a very early stage.

The present engineering laboratory at the West York plant will be retained for developing the larger refrigeration and air conditioning equipment.

Research Houses Planned

Also in connection with its research program, York is constructing two new residences to be used for testing its recently-developed year-round residential heating and air conditioning system. Cost of the houses, including equipment, was expected to be something over $75,000. The houses, located in the Strathcona Hills section of York, will contain no unusual features except for complete year-round air conditioning — the idea being to test two different residential air conditioning systems under conditions typical in a medium-priced house. Occupants of the houses will aid in the tests.

REQUIRED READING

(*Continued from page 48*)

tion: it would have been preferable if Frank Lloyd Wright's name could have been given correctly. He is generally, though not always, referred to as Lloyd Wright (his son) throughout the book, especially in the chronological appendix and on the dust jacket. Non-de-plume for nom-de-plume, on page 171, is distressing, though hardly so important an error). One fact which Americans should ponder is the obvious importance for American culture of the innumerable clients who were willing to employ Wright and his contemporaries of the Second Chicago School during the early twentieth century, because Mr. Howarth quite convincingly attributes Mackintosh's too early decline to his lack of adequate patronage and to the personal frustration and melancholia which this entailed.

While Mackintosh cannot be said to emerge from Mr. Howarth's sincere effort as a more central personality in the development of modern architecture than was previously believed, it is still welcome to have this book devoted to him. From its fine illustrations and from Mr. Howarth's meticulous descriptions, the primary forms of the architect's design unforgettably appear in all their important contradictions: the mightily expressionist masses of a baronial past, the groping, searching tendrils of *Art Nouveau.*

ART IN THE ICE AGE

Art in the Ice Age. By Maringer and Bandi, Frederick A. Praeger, Inc. (New York, N. Y.) 1953. 12½ by 9½ in., illus. $12.50

Life in the ice age has been documented by the Ice-Age artists and preserved in caves throughout Europe. The expression of the period is vigorous and beautiful — the lines are bold and economical — the colors subtle and earthy.

The first discovery of this work was made in the middle of the 19th century by an explorer, Broullet while he was

(*Continued on page 336*)

REQUIRED READING

(Continued from page 332)

excavating in Grotte de Chaffaud near Vienne. His discovery caused great excitement among archaeologists and incited new excavations in France, Germany, Spain, Scandinavia and Northern Russia. The objects exciting artistically as well as historically are well presented in this book which describes the habitat and environment of the Ice-Age artist, as well as the subject matter, the techniques and the state of preservation of the art work. The text is profusely illustrated with colored plates and black and white drawings (which, perhaps, illustrate the spirit of this art better than the color plates) and a map of the sites. — M. B.

THE ART OF DISPLAY

Display. By George Nelson. Interiors Library No. 3. Whitney Publications, Inc. (18 E. 50 St. New York, N. Y.) 1953. 9¼ by 12¼ in. 190 pp, illus. $12.50

A new Book, *Display* edited by George Nelson has been added to the Interiors Library. The word "display," as explained in the introduction by Mr. Nelson, is derived from a Latin root meaning to unfold or spread out and this is exactly what this book does. It spreads out before the eyes of the reader, be he designer or layman, some of the most exciting aspects of the design world.

There is a looseness and ease which characterizes the make-up of the book and in the writing of both the introduction and the captions. With clarity design, or display, is given a broader meaning than usual and includes such categories as showrooms, exhibitions and shop design as well as window displays — virtually every three dimensional design activity in which the main purpose is to show something.

Since the very idea of display is permeated with a set time element the designer does not feel the necessity for creating for eternity and the coming generations but only for himself, his generation and most likely for the limited time of a few weeks. This release from the judgement of posterity gives him an opportunity to relax and enjoy himself, which has much to do with the freshness and gaiety associated with this work. However, it has happened. Take the case of the Eiffel Tower — designed for a summer's exposition — it was kept as the symbol of a city.

This is a research book of value and charm to the designer who will find pleasure in reviewing its contents, and

(Continued on page 338)

REQUIRED READING

(*Continued from page 336*)

a source of surprise and delight to the layman who never dreamed that daily life was so tied up with the mores and dictates of the traditional way of doing things.

The book includes 300 photographs, well displayed and well printed and diagrammatic drawings in black and white and color which clarify the various display techniques. It contains the work of over 125 designers and architects of international note.

CHINESE ART

A Short History of Chinese Art. By Hugo Munsterberg. Philosophical Library (New York, N. Y.) 1953. 5½ by 8¾ in. 227 pp., illus. $3.50

As the title indicates, this is a brief, though not slapdash, survey of the great body of Chinese art from the prehistoric Yang Shao period through the last days of the Ching dynasty. Each era is described in terms of its historical and cultural background, its works from the point of view of both techniques and aesthetics. In spite of the author's careful scholarship, however, a clear understanding of the text is hampered by sadly inadequate illustration. — G. M. A.

FROM EGYPT TO EAMES

World Furniture Treasures. By Lester Margon. Reinhold Publishing Corp. (New York, N. Y.) 1954. 8½ by 10½ in., 186 pp., illus. $7.50

The author, director of the Interior Design Shop, N. Y., contends that good fu niture design fulfills utilitarian demarnds, affords aesthetic pleasure and expresses the taste, culture and milieu of the time. This book illustrates how the construction and design of furniture as far back as ancient Egyptian chairs were so good that their basic patterns survive today in a variety of forms.

Planning Guide for Radiologic Installation. By Wendell G. Scott, M.D. Yearbook Publishers, Inc. (200 E. Illinois St., Chicago) 1953. 10¼ by 7¼ in. 336 pp., illus. $8.00

This volume should be of particular interest to architects engaged in the design of medical buildings as well as all hospital consultants. It contains the results of more than a year of preparation by committees of the American Society of Radiologists and the various chapters have been written by men chosen for their particular knowledge in the field.

(*Continued on page 342*)

REQUIRED READING

(Continued from page 338)

The chapters are for the most part devoted to descriptions of procedure, the equipment needed and the functioning of the areas discussed. A thorough description of the needs of the x-ray office or department were presented rather than merely the sort of plans that manufacturers of x-ray equipment distribute. Included are the types of rooms needed for fluoroscopy and photo fluorographic installations together with descriptions of equipment for operating rooms and special diagnostic examinations, film storage areas, illuminators, darkroom facilities, dental installations and dressing room arrangements.

HOME BUILDERS EDIT BOOK

Housing U. S. A. By NAHB. Simmons-Boardman Corp. (New York, N. Y.) 1954. Illus. $5.00

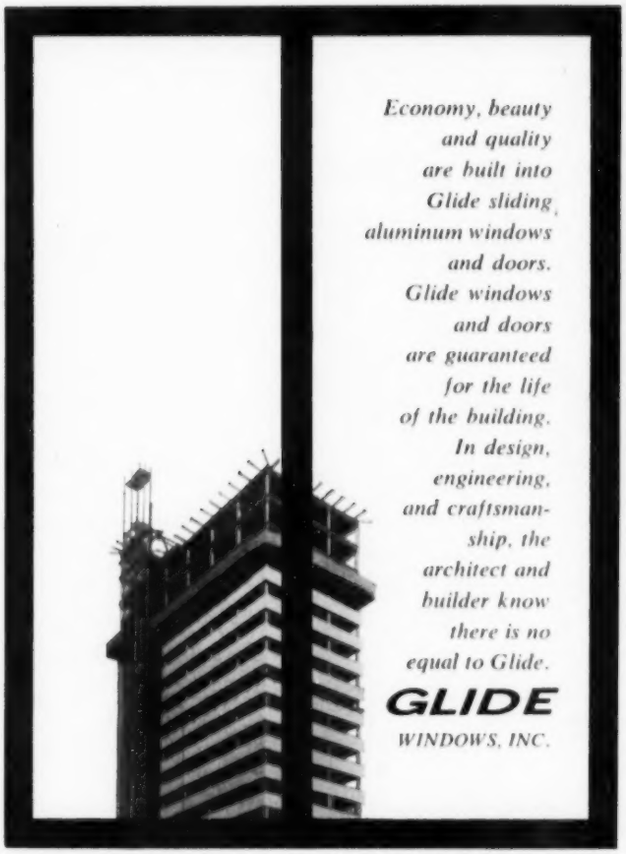
This is a comprehensive collection of articles edited and correlated by a 14-man editorial group composed of American builders and housing experts, all past presidents of NAHB. In non-technical language it tells of the emergence of housing as a modern industry and the concurrent development of today's home builder. Subjects treated include mortgage credit, the U. S. housing inventory and production capacity, builder research, public relations and merchandising programs, urban redevelopment and the slum problems. Also covered are the federal housing agencies and the government's role in housing, cooperative and low cost housing, public housing programs, building codes, housing and manpower in national emergencies, inflation, taxes, and housing in Europe.

YEAR BOOK–5

Architect's Year Book 5. By Elek Books Ltd. (London, England) 1953. 10 by 7½ in. 294 pp., illus.

The aim of the editors of the Architect's Year Book is to present current thought on the philosophy and practice in the art and techniques of modern architecture as well as studies of the past, using it as a source of fundamental precepts. The fifth volume contains articles on the Bauhaus idea, space painting in architecture, systems in proportion. Walter Gropius and Frank Lloyd Wright

Also included are developments abroad; town planning including the Chandigarh, India, Capital city project; technical articles on artificial lighting, precast concrete, prestressed concrete, bellrock panels and modern wood windows.



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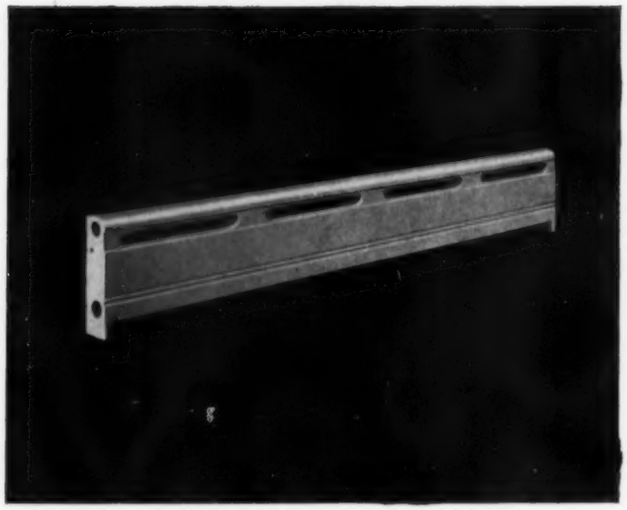

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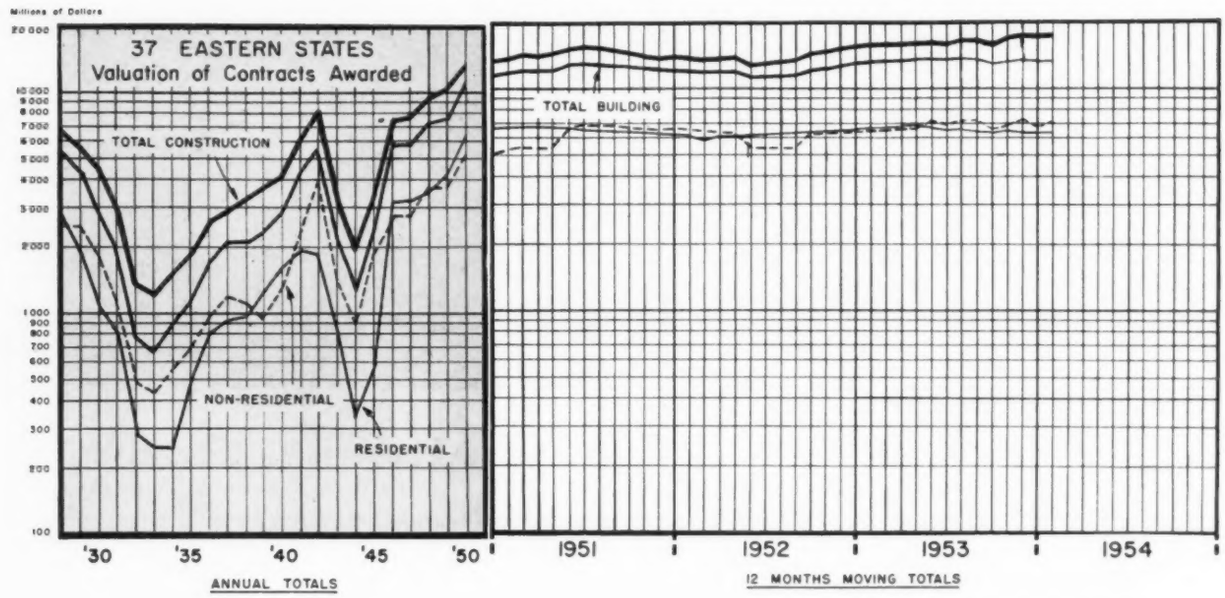


Charts by Dodge Statistical Research Service

FIRST 1954 FIGURES SET ALL-TIME RECORD

VALUATION OF TOTAL CONTRACTS AWARDED in January dropped 11 per cent below the December level as a result of declining activity in nonresidential and heavy engineering construction. All three major construction groups, however, showed dollar volume gains over January 1953: total valuation was up seven per cent, to set a new record for the first month of any year.

Nonresidential awards for January dropped 12 per cent from the December valuation and registered a seven per cent decline in physical volume. As compared with last January, however, dollar volume for the month represents a 16 per cent improvement, and floor area showed a five per cent gain.

Value of residential building in January rose seven per cent above the previous month's figure and one per cent over January 1953. Physical volume for the month registered a three per cent gain over December, but fell six per cent below January a year ago.

Valuation of heavy engineering work for the month declined 34 per cent from the December level, but showed a four per cent gain over last January.

HOSPITAL CONSTRUCTION*

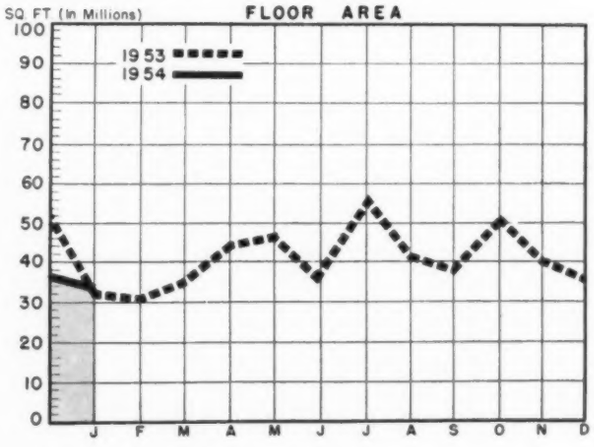
F. W. Dodge Contracts Awarded—37 Eastern States (millions of dollars)

Year	Annual Total	Monthly Average	Year	Annual Total	Monthly Average
1939	72.2	6.0	1950	615.6	51.3
1945	108.7	9.1	1951	550.6	45.9
1949	527.5	44.0	1952	401.5	33.5

1953 (403.8)			1954
Jan. 34.2	July 28.6		Jan. 37.6
Feb. 17.0	Aug. 55.7		
Mar. 26.2	Sept. 32.3		
Apr. 23.0	Oct. 59.7		
May 23.0	Nov. 37.8		
June 27.6	Dec. 38.6		

*See Building Types Study No. 208, pp. 159–190

NONRESIDENTIAL BUILDING (37 EASTERN STATES)



RESIDENTIAL BUILDING (37 EASTERN STATES)